MARCH, 1953

Industrial FINISHING

Published Monthly in the Interest of Product Cleaning and Painting by Practical Publications, Inc., 1142 N. Meridian Street, Indianapolis 4, Ind.

THE RED CROSS SLOGAN FOR 1953 . . .

Answer the Call!

The slogan is an appeal to all people to enroll in the Red Cross as partners in merciful help to victims of disaster, in service to members of the armed forces and their families, and in community programs of health and safety.

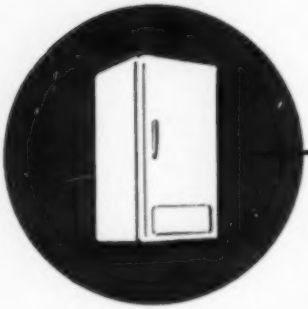
Our slogan, "With the Right Finish—you'll Finish Right," is symbolized by the Lilly Key, always ready to provide the "right" finish.

Lilly FINISHES

VARNISH COMPANY

Indianapolis, Indiana • Gardner, Mass.

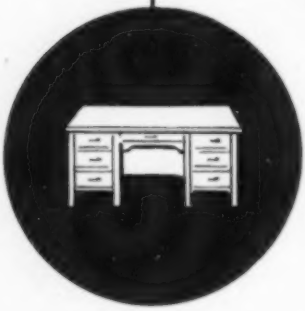
THE LILLY COMPANY • High Point, N. C.



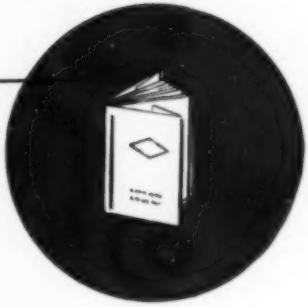
Duranite Enamels keep refrigerators and other appliances new-looking . . . resist marring.

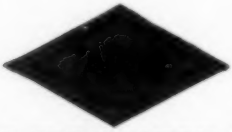
Clear Duranite Enamels protect lustrous metals against discoloration, perspiration.

Zaponite® lacquers are ideal for wood office furniture... resist marring, cold-checking, printing, alcohol.



Zapak® Paper Coatings give glossy, durable protection to printed book jackets.





"SERVICE FROM EVERY ANGLE"

Your product—of metal or wood, paper or plastic—will look better and sell better with a custom-tailored ZAPON finish. ZAPON "Service From Every Angle" gives you valuable assistance in selection of the right finish and in preparing and applying it to *your* product in *your* plant.

ATLAS POWDER COMPANY WILMINGTON 99, DELAWARE

for Industrial Finishes • Stamford, Conn. • North Chicago, Ill.

Chet Smith, President of Smith Cabinet Manufacturing Co., Inc., says—

FOR PROTECTION AGAINST FIRE WE INSTALLED FIVE M&E WATER WASH SPRAY BOOTHS

M&E

PAINT SPRAY FINISHING SYSTEMS

M&E MANUFACTURING COMPANY • 2569 WINTHROP AVENUE INDIANAPOLIS 5, INDIANA

Finish helps blend the old with the new in the *Chantilly* group by FOX

French provincial and modern design are blended in the Chantilly group by the Fox Manufacturing Company. This skillful blending is accomplished both in design and in the finish. Custom-created for Fox in our studios, it is completely modern in application and protection, yet it is glowingly reminiscent of the worn fruitwood found in fine old French Provincial . . . another example of the imagination and experience that produces profitable finishes for our customers.

The Better the Finish, the Better the Buy

GRAND RAPIDS VARNISH CORPORATION

GRAND RAPIDS, MICHIGAN

Makers of the Famous Guardsman Finish and Guardsman Cleaning Polish

MARCH, 1953
Vol. XXIX, No. 5

ECA

A monthly magazine for finishing room and paint shop foremen, production superintendents, chemists, purchasing agents and company executives of industrial plants where product surface cleaning and finishing are major operations in the manufacture of parts and products.

Industrial FINISHING

W. H. ROHR, Editor P. C. BARDIN, Associate Editor

Contents

Random Comment on the Industrial Scene 4
A Practical Approach to Research 22
How We Finish Steel Kitchen Cabinets 28
Change Setup to Add New Product 39
How We Dry Screen Processed Cardboard and Paper Materials 42
Mass Production Finishing of Television Cabinets 52
Cleaning, Painting and Lithographing Steel Drums 68
Letters from Readers 82
Questions & Answers 92
Materials; Supplies; Equipment 102
Booklets; Circulars; Catalogs 114
Editorial 116
Classified Advertising Department 125
Advertisers Index 128

Purchasing Agents Versus Salesmen 40
Sales Manager of Glidden's Miss'ssippi Region 62
Metalwash Machinery Corp. Modernizes Central Office.. 62
Glyco's 25th Anniversary 66
Screen Process Printing Assn. Begins Research on Drying.. 66
Tank Linings of Koroseal 78
Protective Coatings for Low Alloy Steels 94
Two New Directors Elected by American-Marietta Co. 94
Viscosity Measurement 96
New District Mgr. Appointed by Pangborn Corp. 96
Add to My Pullman Spray Painting Article 98
Cleaning Compounds for Electroplating 119
Latest In Modern Finishes 119
W. G. Torrance Joins Standard-Toch 119
Two Men in Detrex Corp. Advanced 119
C. H. Groff, Tech. Dir. for Watson-Standard 122
L. J. Hay Elected President of Chicago Electro-Platers. 123
"Formbrite" New Brass 123
Lyle Van Patten Joins Sales Force of Hart & Burns 124
Sherwin-Williams Names Spitzer to New Post 124
Dunbar Appointed Member of Lacquer Committee, NPV&L 124
New Home for Solvents Firm. 125
R. H. Allgood, Dir. of Public Relations for Detrex Corp. 125

Acceptance under Section 34.64, P. L. & R., authorized

Published
the 18th of each month by
PRACTICAL PUBLICATIONS
Incorporated
1142 N. Meridian St.
Indianapolis 4, Ind.
Telephone Plaza 6771

President ..... W. H. Rohr
Vice-President ..... E. A. Dusch
Sec.-Treas. ..... R. E. Sultz

Eastern Representative:
C. A. LARSON
254 West 31st St.
New York 1, N. Y.
Phone: Longacre 4-4285
4-4286

West Coast Representatives:
SIMPSON-REILLY LTD.
Halliburton Building
Los Angeles 17, Calif.
Telephone: Dunkirk 8-1179
814 Central Tower
San Francisco 3, Calif.
Telephone: Douglas 2-4984

Subscription Rates Per Year
U. S. and Possessions $3.00
Canada and Foreign Countries $5.00

29 TWENTY-NINTH YEAR OF PUBLICATION

More Toys. The toy industry has been hitting peaks in production and sales since 1949. Last year production was valued at 400 million dollars, an increase of 12½% over 1951. This increase was accomplished in spite of a general price decline of about 8%.

According to Robert B. M. Barton, president of the Toy Manufacturers of the U.S.A., it is indicated that 1953 will be another record year. Among the reasons, an increase in the number and variety of toy outlets: drug stores, sporting goods stores, hardware stores, auto supply stores and supermarkets as well as department stores.

Children have always been toy conscious, but now magazines and newspapers are doing their part to promote toy consciousness in parents. This will aid industry as well as children.

* * *

Sample Tools at Shop Door. One member of the American Association of Machinery Importers, Inc., brings his samples right to the prospect's door.

Eric R. Bachmann, Long Island City, N.Y., has developed a traveling machinery showroom aboard a 1½-ton truck. The equipment is a cross-section assortment of machine tools.

Bachmann says the reception has been enthusiastic. In many cases groups of purchasing agents, supervisors, plant foremen, managers, and superintendents have jointly inspected the machinery. Robert A. Richter, sales engineer for Bachmann, pulls right up to the front door of a plant and the inspection starts with no time loss.

* * *

Blond Board. The blond is Miss Resinwood of 1953. The board is the New Resinwood produced by Resinwood Products, Rock Island, Ill. The attractive coffee table, made by The Forbert Corporation, has a Resinwood top decorated in a hand tooled leatherette effect.

Resinwood is a new industrial hard board made from granulated wood

Dolan's

HI-SOLIDS LACQUER No. 8800

The unprecedented demands for our Hi-Solids Lacquer have convinced us that Lacquer users want High-Solids.

Dolans No. 8800 Hi-Solids Lacquer is formulated at spraying viscosity: requires no thinning. It flows out perfectly to produce a full bodied, tough, durable film, possessing excellent cold check resistance.

No. 8850 COMPANION SEALER

Provides the perfect foundation for No. 8800 Hi-Solids Lacquer.

The ultimate in QUALITY and ECONOMY is obtained by using both of these outstanding products as a Finishing system.

Order a Drum of each today.

FROM the START CONSIDER the FINISH

V. J. DOLAN & COMPANY, INC.

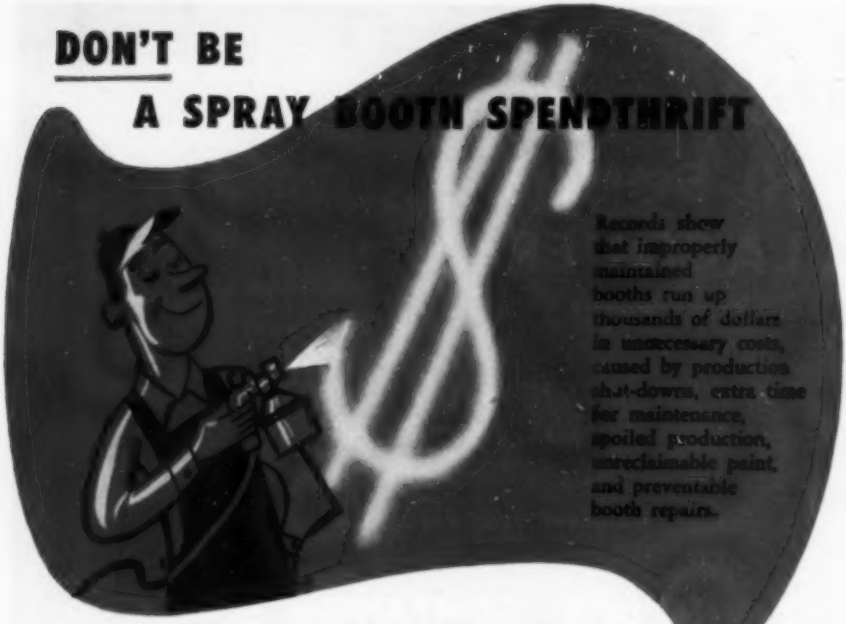
"Unquestionable Quality"

INDUSTRIAL FINISHES

1830 N. Laramie Avenue Chicago 39, Illinois

BErkshire 7-0100

DON'T BE A SPRAY BOOTH SPENDTHRIFT



Records show that improperly maintained booths run up thousands of dollars in unnecessary costs, caused by production shut-downs, extra time for maintenance, spoiled production, unreclaimable paint, and preventable booth repairs.

CUT COSTS with DuBOIS SPRAY BOOTH MAINTENANCE

Here's what you get when you do business with DuBOIS:

Thorough analysis of your operations by trained and experienced personnel. Installation of prescribed specialized compounds:

- **KLARIFIANTS** . . . Water-wash compounds to effectively control overspray
- **FILMITES** . . . coatings for dry areas of spray booths
- **STRYPP** . . . for periodic purging of old paint deposits in the hydraulic system.

FREE . . . spray booth maintenance check chart

. . . yours for the asking, a daily, weekly and monthly program for proper cleaning and maintenance of paint spray booths.

The DuBOIS Co., Inc.

Cincinnati 3, Ohio Los Angeles 33, Calif.

Serving Industry Since 1920

fibre bonded with phenolic resins under extreme heat and pressure—both sides having the same smooth, natural, pine-colored surface. Resinwood requires no decorating but takes all finishes readily.

* * *

Replaces Sheet Metal. Tanks and ducts are now being fabricated to specifications, without limitation as to size and shape, of Iolyte, a Fiberglas* reinforced polyester laminate. No molds are used and a number of merits are claimed:

1) Economy of manufacture and faster delivery; 2) Iolyte is a chemical-resistant structural plastic, not a coating; there is no problem of chipping, crazing, cracking, scratching, or other damage; 3) a Fiberglas* reinforced polyester laminate, Iolyte withstands higher temperatures than vinyls, rubber, polyethylene, etc.; 4) Although it has the tensile strength of steel, it is only one-fifth its weight; 5) Sizes and shapes are not limited; 6) Ducts made of Iolyte are easily installed.

---

*Fibreglas is a trademark of Owens-Corning Fibreglas Corporation.

* * *

Kills Industrial Odors. Industry is taking a look at its odor problems and recognizing that offensive industrial odors which create a public nuisance, work and product handicaps can be effectively and economically removed or counteracted.

In some industries, odors have become such a public nuisance that court action has been taken against the offending company by communities overwhelmed by odors.

Chlorophyl counteractants have been successful in neutralizing odors inherent in certain products and without which the products could not have been successfully marketed. New type

DUALHEET
Paint Heaters For Industry

MODERNIZE Your Finishing Technique With DUALHEET HOT SPRAY...

And Get These Dualheet Features!

- Used singly, wall mounted or portable—or, in "Tandem" style ganged together in one outer jacket.
- Two styles: WITHOUT Recirculating Pump and Motor where constant flow of paint is used; WITH Recirculating Pump and Motor Attachment where production is intermittent.
- Exclusive DUALHEET feature places controlling thermostat direct in paint to minimize temperature variation.
- Exclusive design and construction provide the SMALLEST, yet the most POWERFUL Paint Heater approved by Underwriters Laboratories.

Model 250-R Dualheet with Recirculating System

Write for LATEST LITERATURE—Compare DUALHEET'S Many Features!

Industrial Factory representatives write for details.

DUALHEET incorporated
3350 West 137th Street · Cleveland 11, Ohio
West Coast: 10817 Long Beach Boulevard, Lynwood, California

TRY THIS
ONE COAT WHITE

For all their bubble and sizzle, soaps and detergents fizzle when it comes to affecting Sea-Lac's ONE COAT WHITE. This is the one WHITE that has unfazable resistance to the action of soaps and detergents. Bakes in 35 to 45 minutes at 300° F. Has good flexibility and mar-resistance. Can be used with primer, if desired.

SEA-LAC
REG. U. S. PAT. OFF.

DURALAC CHEMICAL CORP.
84 LISTER AVE., NEWARK 5, N. J.

synthetic rubber, carpet matting and mattresses owe, in part, much of their public acceptance to the part that odor counteractants play in their manufacture.

* * *

Aluminum Hardware. To meet an indicated, mounting demand for aluminum fixtures for schools and other institutions, The Yale & Towne Mfg. Co., for the first time in its 85-year history is now producing a new full line of locks and builders' hardware fabricated of the versatile, lightweight metal.

* * *

Packaging Machine. The Auto-Pak, a new, low cost, extremely versatile packaging machine developed by Pak-Rapid, Inc., 530 N. 21st St., Philadelphia 30, Pa., automatically forms two sheets of heat sealing material around products, seals the four sides, cuts off and delivers a completely sealed package. The unit, which plugs into any ordinary light circuit, makes packages from 1-in. square by ½-in. thick to 6-in. square from practically any heat sealing web including cellophane, foil, glassine, heat sealing kraft, etc.

* * *

Electrifloor. A new, electrified steel panel subfloor manufactured by the Detroit Steel Products Co. and the National Electric Products Corp., has received the listing and approval of the Underwriter's Laboratories, Inc., according to a joint announcement by the two companies.

A header duct system with conductors running through the cells of the floor is National Electric Product's contribution to the electrifloor. The system permits the installation of electrical outlets in each square foot of space.

Underwriters' representatives cited the enclosed cells of the floor which

(Continued on page 120)

These Manufacturers Have Proved the DEPENDABILITY of

DESPATCH

Engineered

FINISHING SYSTEMS

Space does not permit us to show or even list the hundreds of satisfied users of DESPATCH Engineered Finishing Systems who have proved their dependability with increased production and improved quality, however, the four shown are typical examples.

DESPATCH FINISHING SYSTEMS are designed and built to finish your product better, faster and more economically. They are engineered to fit your particular requirements. You can get a complete system or individual units, such as—

- BAKING OVENS
- SPRAY BOOTHS
- WASHERS
- DRYOFF OVENS
- FLOW COATERS
- CONVEYORS
- AIR MAKEUP SYSTEMS

Resident engineers located in your vicinity are ready to help you with your finishing problems.

For More Information Write For Bulletin SIE

DESPATCH OVEN COMPANY
Minneapolis Office: 619 S. E. 8th St.
Chicago Office: 4554 N. Broadway
Sales offices in all principal cities

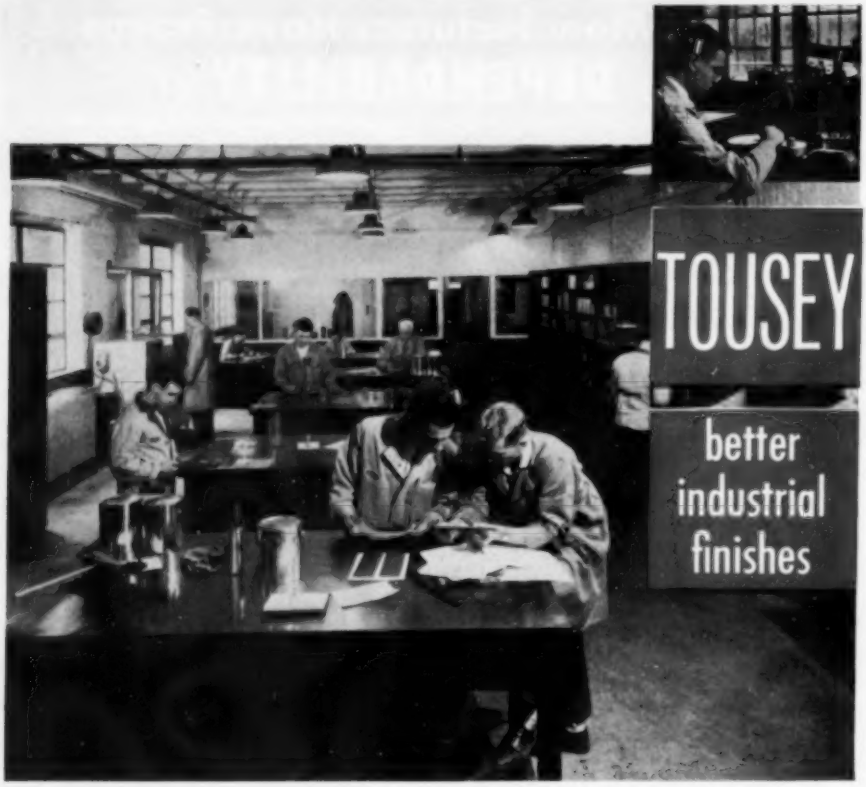
Lyle Sign Co., Minneapolis, increased metal sign production 25%, with DESPATCH conveyorized Finishing System.

Bunting Glider Co., Ardmore, Pa., metal furniture makers, gets 4 times the production, no operating cost increases with this DESPATCH Conveyorized Washer and Dry-off Oven.

Atlas Mfg. Co., St. Paul, cuts paint costs 25% on furnace cartridges and heater jackets with this DESPATCH Finishing SYSTEM.

Coon Stool Products Corp., Chicago, washes, paints, finish-bakes stainless handling seats on a stepped-up schedule with this DESPATCH Finishing System.

PIONEERS IN ENGINEERING HEAT APPLICATIONS FOR INDUSTRY



We have a large staff of competent technicians and the proper testing equipment to solve your finishing problems.
Industrial finishes of the highest quality, tailored to individual requirements are yours when you use Tousey paints, varnishes or lacquers.
Let us help you with your finishing problems . . . Write Today.

TOUSEY VARNISH COMPANY
520 W. 25th Street • Chicago 16, Ill.

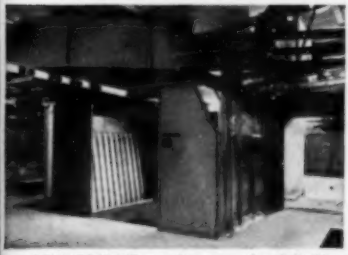
TOUSEY PRODUCTS
DURACOTE for DURABILITY

FOR

Schmieg Complete FINISHING SYSTEMS

These photographs of SCHMIEG finishing equipment recently installed in the ultra-modern plant of a large manufacturer of kitchen equipment and other metal specialty items.

Above is SCHMIEG air supply equipment located in the building penthouse. During operation, doors in equipment enclosure are closed. Stack and fan is one of five stacks from spray booths on the floor below.



SCHMIEG Uni-Flow prime spray booth looking into booth from operator's side. Door in foreground is closed during operation of the booth.

ask the Engineers...

Why SCHMIEG Finishing Systems give best performance per dollar invested.

It's no secret that design experience and engineering skill have put SCHMIEG out in front, where careful planning and reasons of economy are most necessary for specific plant installations.

SCHMIEG Uni-Flow SPRAY BOOTHS offer important advantages in space saving and operating economy.

SCHMIEG Industrial OVENS are recommended by engineers who know, for hundreds of uses that save dollars in plant operations.

So also the SCHMEIG mesh-belt, conveyor type WASHERS, and the automatic circular types which time, index and rotate parts through wash, rinse and blow-off steps—operated by a single worker.

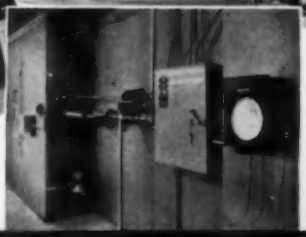
For the very best aids to efficient, money-saving industrial operations, ask the engineers who know*—about SCHMIEG. Then call in our engineers to design units ideally suited to your specific needs.

SCHMIEG Centri-Merge dust and fume elimination units have been acclaimed as the best solution to the problem of removing dust and fumes, in any industrial application.

**Write for folder giving partial list of users.*

Entrance end of rust-proofing machine. Exit end of prime and finish ovens. Note pusher conveyors to convey work through ovens.

General view of SCHMIEG Uni-Flow spray booth at exit ends.



External view of Dry-off oven. Direct fired heating equipment and circulating fans are located in offset section of oven. All controls are in panel in foreground.

THE best AIR PURGE is CENTRI-MERGE

Schmieg INDUSTRIES INC.

Engineers & Manufacturers

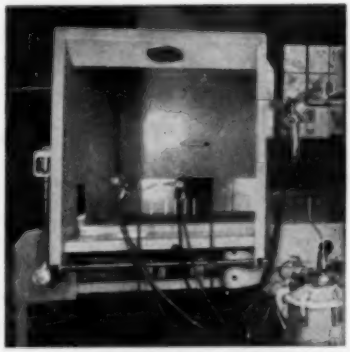
P. O. BOX 4701 • DETROIT 34, MICHIGAN

AUTOMATIC ELECTRIC SPRAY BAKE CONVEYOR COATING MACHINE

Pays For Itself in Regular Production Within 3 to 6 Months

Has Built-in Drying Chamber and Electric Strip-heated Oven

- Equipment includes conveyor, water-wash or dry-spray booth, drying compartments, electric strip-heated oven, controls, etc.
- Handles pieces from 1-in. diameter to over 12-in. in diameter.
- Pieces on work holders are automatically sprayed . . . travel through a drying chamber for solvent evaporation, and then into electric strip-heated bake oven.
- Excellent for shell noses, cartridges, weapon parts, clocks, pens, pencils, hardware, etc.
- Produces a high quality finish and exceptional savings on sizes and shapes that are difficult to handle.



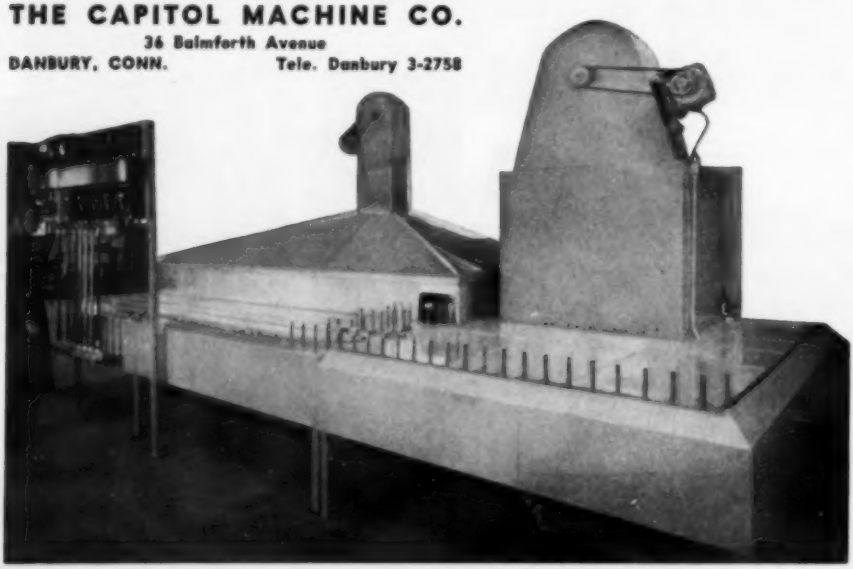
View of booth showing automatic spray guns — lower view shows conveyor arrangement and drying and baking compartments.

Let us make a test run of your own work samples— for time study and cost analysis—no obligation.

THE CAPITOL MACHINE CO.

36 Balmforth Avenue

DANBURY, CONN. Tele. Danbury 3-2758



AVALEX

Lacquers Enamels Varnishes Stains

Twenty top research chemists take their time checking, analyzing and controlling the quality of AVALEX industrial finishes to keep them worthy of your product.

Let us help you with your finishing problems.

BETTER FINISHES THROUGH RESEARCH

ESTABLISHED 1911

JAMESTOWN FINISHING PRODUCTS, INC.

Jamestown, N. Y.

WATERFALL IN JAPAN

Leading Appliance Manufacturer Cuts Japanning Costs by Water Recovery Using Glidden Bombay Black Finish

This waterfall turned out to be a windfall for one of America's leading range manufacturers. It enabled HOTPOINT to substantially reduce japanning costs.

In this case, HOTPOINT utilized the idea of recovering the japan previously wasted in the draining operation. The Glidden Technical Service Department and service men helped develop this water recovery system in which dripping japan falls on a water curtain. It is subsequently recovered by an unusual emulsion breaking and separating technique.

Perhap you, too, can cut your finishing costs appreciably. Glidden —leader in the development of quality product finishes—will be glad to work with you. Write us today.

THE GLIDDEN COMPANY
INDUSTRIAL FINISHES DIVISION
11005 Madison Avenue • Cleveland 2, Ohio

SALES OFFICES AND FACTORIES:
San Francisco, Chicago (Nubian Division—1855 North Leclaire Avenue), Minneapolis
New Orleans, St. Louis, Cleveland, Reading, Atlanta and Toronto, Canada.

Battery of Paint Baking Ovens.
A-Type Continuous Paint Baking Oven.
Continuous Dry-Off Oven.
LANLY
FINISHING OVENS
THE LANLY COMPANY • 760 PROSPECT AVE
CLEVELAND, OHIO
Continuous Monorail Oven with Air Seals.
LANLY Specialized engineers are daily consulting with progressive manufacturers and meeting the need for high grade, uniform, finishing oven production at satisfactory volumes.
Continued repeat orders vouch for LANLY competence.
Complete information and literature supplied upon request.
Batch-Type Oven.
Lay-Down Porcelain Enamel Dryer.
Multiple-pass Finishing Oven.

NO WORRY WHEN IT'S

ODOR LESS ——

When decorating offices, stores, hotels, apartments, etc., why be annoyed with the lasting odor of newly painted walls. With Nikolas "Odorless" Paints the only indication of fresh paint will be the "WET PAINT" sign.

Not only are these paints odorless, but careful formulation has resulted in a finish with remarkable durability, eliminating the yearly necessity of doing it over.

Available in almost every conceivable color, from white to black, pastels, and deep-tones.

For Full Information, write—

G. J. NIKOLAS & CO., Inc.

Manufacturers of Finest Lacquers Since 1895

2850 WASHINGTON BLVD.
BELLWOOD, ILLINOIS

33 GRAND ST.
BROOKLYN, N. Y.

PLANTS BY THE THOUSANDS *Switch to*

TYPICAL EXAMPLES OF FOSTORIA ADVANTAGES

Studebaker, Canada has 7 Fostoria ovens used for Bonderite, prime and finish coat drying of bodies and parts. Time is about half formerly needed. Maintenance reduced 75% over older methods. Finishes improved by penetration of heat through paint film. Cleanliness has practically eliminated rejects and reprocessing.

MOST EFFICIENT OF ALL FINISH BAKING OVENS

This Fostoria oven at Canadian Oil, Ltd. bakes yellow and white finish on oil and grease drums in 4 minutes. Production of 200-100 lb. grease drums and 100-45 gal. oil drums has been obtained. Starting section of oven has 500 W lamps. Balance of oven has 500 W lamps top and bottom rows and 250 W lamps in remainder.

FOSTORIA OVENS

For FINEST FINISH QUALITY

Lowest "Per Piece" Production Cost

UNEQUALLED LOW-COST ADVANTAGES

1 **LOWEST OPERATING COST**
Puts heat into the product — not into oven walls. Uses less fuel. Gold plated interior reduces heat loss to 2%.

2 **REQUIRES LESS FLOOR SPACE**
Shorter Cycles — most production for oven size. May be ceiling mounted.

3 **FASTEST PRODUCTION**
Fastest means of heat transfer. No warm-up required — no shut-off lag. Heat levels instantly changeable.

4 **LOWEST MAINTENANCE COST**
Clean operation — no combustion by-products. Lowest source replacement cost.

5 **COMFORTABLE WORKING CONDITIONS**
No room ventilation problem.

6 **COMPETITIVE INITIAL COST**
Comparable to any quality-built oven.

UNEQUALLED QUALITY ADVANTAGES

1 **SMOOTH "FLOW-OUT" OF PAINT**
Uniformity of heat distribution and rapidity of solvent removal give smooth, even paint film.

2 **THOROUGH UNIFORM BAKE**
Near Infra-red energy penetrates paint film with constant uniform temperature.

3 **CLEAN FINISH**
No by-product of combustion — no condensation of solvent volatiles to mar finish.

4 **SAFETY CONTROLLED**
Instant heat shut-off with conveyor stoppage. No over-baking by shut-off lag.

Write for brochure of technical facts on Infra-red and case histories of many Fostoria oven installations. Tell us about your particular problem and we will include data directly applicable to your operations.

FOSTORIA PUTS HEAT INTO THE PRODUCT — NOT IN THE OVEN WALLS

INFRA-RED fostoria OVENS

Send for Complete Facts

THE FOSTORIA PRESSED STEEL CORP.
FOSTORIA, OHIO, Dept. IP

Please send information on Infra-red ovens for

.....

Name .....

Company .....

Street .....

City ..... State .....

Rollacoat for economy

GET FINER—FASTER FINISHING!

The benefits to be gained by using the Rollacoat method of applying finishes and protective coatings, to practically any type of flat materials, are three-fold. In the first place coating speeds are greatly increased over those of any other method and are governed largely by how fast the coated materials can be handled or dried. Secondly, the coverage per sq. ft. per gallon is usually at least 50% greater, the only loss being the paint removed from the rolls at the end of a run. In the third place you obtain finer quality of finish due to accurate control of thickness and eveness of coat.

The applications of Rollacoating are numerous. Top, bottom and sides of practically any type of flat material, whether sheet or coil stock, can be coated by a single pass through the machine.

Special equipment for cleaning, treating, coating, drying, and rewinding strip in continuous process can be constructed to special order.

GASWAY CORPORATION

Write or wire today for the 12 page Gasway illustrated book describing Rollacoat Finishers, their possibilities and limitation.

6463 N. Ravenswood Ave.
Chicago 26, Illinois

One of America's leading manufacturers of fine enamels, lacquers and undercoats for appliances, automobiles, trucks, farm equipment, and numerous other products of industry. We invite your inquiry.

RINSHED-MASON CO.

5935 Milford Ave., Detroit 10, Michigan
1244 N. Lemon Street, Anaheim, California
In Canada: Standard Paint & Varnish Co., Ltd. Windsor, Ont.

A Practical Approach to RESEARCH

BY WILLIAM R. HOWELL
Ass't. Works Mgr. and Methods Engineer
Master Rule Manufacturing Co., Inc.

HAVE YOU EVER looked in the back of a desk drawer, found a sample of a product that you make, and wondered what is the peculiar finish that it has? Perhaps you recall that several months ago some salesman called on you with a "cure-all" and that you gave specific information to your finishing foreman to follow in using the sample the salesman left. After that your mind is blank. If only this sample had some identification?

A large firm with an organized research staff wouldn't allow a situation like this to happen—but many of us are with small firms who connot afford a staff, yet research, when it is done, is just as important to us.

Provides Information That Firm Will Need Later

The firm I work for has, for many years, followed a plan that embraces the methods of an organization having a full staff of laboratory workers, and yet this plan comes well within a budget that does not allow even one full-time employee, but expects every dollar to give a dollar's worth of service.

What we include in research: problems, tests, experiments, Surveys and investigations— any work that isn't routine.

An academic analysis of the new approach to any research may be expressed in the following steps:

1) Well defined objectives.

2) Definite pattern of attack.

3) Proper interpretation of the results.

These three steps sound simple indeed, but in order to make practical use of them we have to establish a definite procedure that can be applied to the problems of a small firm—one that is within the ability of its available employees.

We have found that a general pattern, based on the steps to be listed later, has given us a practical way to handle our problems, and it is easy to see that they do include the basic steps referred to above. [*Continued on page 24*]

painting?

See what Ransburg can do for you

Our electrostatic coating processes may provide you with increased production and higher quality finish at a fraction of your present painting cost . . .

- RANSBURG NO. 1 ELECTRO-SPRAY
- RANSBURG NO. 2 ELECTRO-SPRAY
- RANSBURG ELECTROSTATIC DETEARING

If your production volume justifies conveyorized painting, we invite your inquiry to permit evaluation of the savings which can be yours with one of these processes. Write or call for information.

RANSBURG ELECTRO-COATING CORP.

Indianapolis 7, Indiana

RANSBURG

When we use the term "problem," we include research, experiments, tests, surveys and investigations; in other words, any type of work that is not routine—something that is done occasionally yet it is important, and a definite answer must be forthcoming. In past years some of the subjects treated included finishes, inspection lights, lubrication, slushing compounds, hand soap and disposal of sawdust. The steps are as follows:

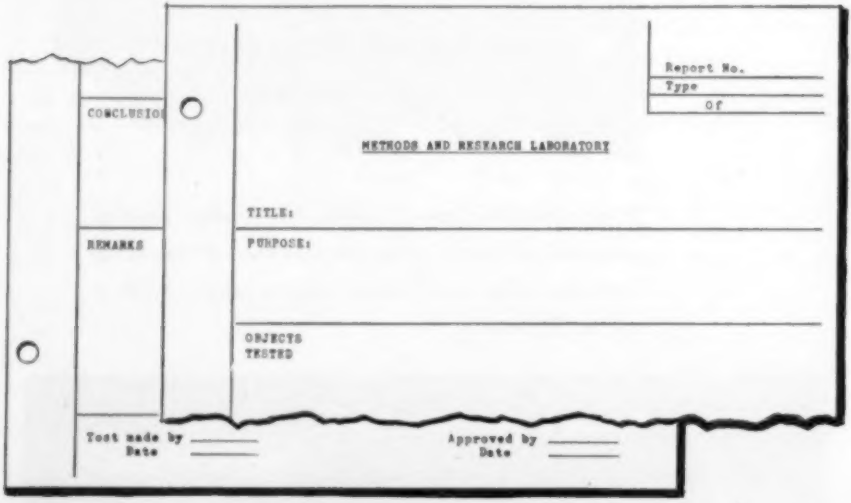
1) Title
2) Purpose
3) Objects tested
4) Conditions of test
5) Criteria of test
6) Results
7) Conclusion
8) Remarks

A description of each step, as listed here, shows their significance and purpose:

1) Title. This step is used to identify the work to be done. It should be brief and to the point, for example, "Synthetic enamel to replace air-dry lacquer".

2) Purpose. State what is to be done; make it clear in everyone's mind. It is conceivable that if you have a new organic finish to experiment with, the production foreman may think of it in terms of its drying time; the sales department would be interested in its "depth", luster and sheen; the accounting department would be concerned with its cost. If only one of these angles is to be considered, write it down. If all of them are to be considered, likewise explain. In other words, make sure that when you refer to this report you know just what the test is to be for.

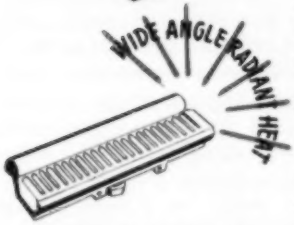
3) Objects Tested. Complete identification of the objects must be re-



Suggested forms on which to enter information relating to research on any problem or project.

It's the finer details that count in the

NEW BURDETT "RADI-HEAT" LINE BURNER



The new 10-L "Radi-Heat" Line Burner offers results unequalled in the field of Radiant Heat Processing.

- ★ Note the rounded corners on the refractory to prevent needless dispersion of fuel—an added economy.
- ★ Note the wide angle of Radiant Heat Projection—more production in less time.
- ★ Full length radiance.
- ★ Unobstructed orifice and plenum.
- ★ Operates in any position—on any gaseous fuel.
- ★ Extremely wide operating range.
- ★ Virtually no maintenance.
- ★ Adaptable to applications of from one foot in length and up.

Investigate the No. 10-L "Radi-Heat" Line Burner. Greater Economy—Better Results

Phone: SAcramento 2-0700

BURDETT MANUFACTURING COMPANY

3425 West Madison St., Chicago 24, Illinois

Also Manufacturers of "Radiant Heat" Systems, Ovens, Heaters, Air Make-Up Units, Spray Booths and Washers

corded, the name of the company that submitted them, and any technical coding that may be involved. Also, it may be well to write down the salesman's name.

4) Conditions of Test. A good way to explain this test is that enough information and detail should be recorded so that the test may be repeated in its entirety, at a future date, by someone who is not familiar with the first test. If special apparatus has been set up, it will be well to make a sketch of it.

5) Criteria of Test. Information under this heading should follow the statement explained above under "Purpose", but it sets forth in detail what is to be expected. If the test is to substitute a new material of some type for one that is being used, then the two objects can be tested side by side. If it is to find out some quality in a new material, make sure that this quality definition is known before you begin. It is extremely important, when making tests at a future date, to refer back to original tests of the same type so that you always have the same citeria.

6) Results. If the criteria of the test is well defined, it will be easy to record the results. A great deal of information should be recorded in the final results for reference, although, only one aspect may be used at the present. The other information may come in handy at a future time when unexpected results may appear; it will be valuable to be able to refer back and see if they occurred before.

7) Conclusion. This setup sums up the opinion that is formed after the "Results" have been analyzed. It should be brief and right to the point so that a department head or manager can quickly find out what the outcome has been.

8) Remarks. This is a catch-all under which any information that does not properly fall into one of the other headings, yet is pertinent to the test, should be recorded.

We code all of our tests by using the date that the test is made as a basis; for example, a test made on February 15, 1953, would be coded 21553. Using the date as a code also serves a double purpose. Any samples that have resulted from the test are tagged and put in a special object file where samples are kept. The test reports are always entered on the same type of forms and are filed in a loose-leaf notebook.

Many people think that firms, no matter how large or small, have unlimited funds for research. Research is more expensive than the average person realizes and we believe that by using the approach we have explained here, expenses may be reduced. The executive who has to refer to research reports occasionally, will certainly find this method to be of value. However, just like any other managerial tool, management must insist that it be used in every case in order to get the full advantage from it.

It would be helpful if the representative of a selling organization, who has occasion to leave a sample with a prospective customer, would include a blank form based on the topics discussed in this article. It would be a definite help to the prospective customer and would give the sample a better chance.

Buy "KNOW-HOW"

A DEPENDABLE new Basic White Litho coating having unique properties has been developed by the Watson-Standard laboratories.

This Basic White Coating has all the outstanding properties of alkyd coatings, yet retains the ease of handling of oleoresinous coatings.

This revolutionary coating may be reduced with mineral spirits and tinted with either oleoresinous or alkyd tinting colors.

It has outstanding color retention on initial baking and on rebaking plus excellent fabrication properties—even to the extent of fabrication of screw caps.

Flexibility of baking schedule, excellent printability, color retention, high solids and versatility make this Basic White an outstanding tool for the coatings industry. Of great importance, too, is its economical cost.

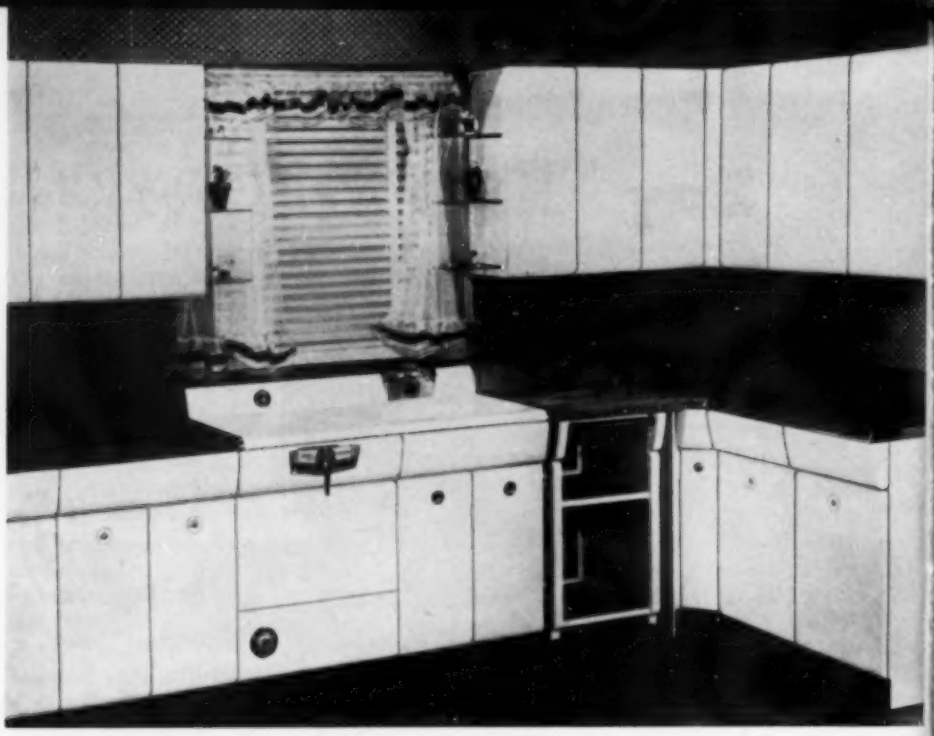
The services of our laboratories and field technicians are available to you without obligation. Write today for technical details and samples, and your copy of "White Coatings for Industry."

Watson-Standard CO.

225 GALVESTON AVE., PITTSBURGH 30, PA.

NEW YORK OFFICE: 15 Park Row, New York 38, N. Y. • CHICAGO OFFICE: 55 E. Washington St., Chicago 2, Ill.

INDUSTRIAL FINISHES • PAINTS • PLASTICS • CHEMICALS



How We Finish
STEEL KITCHEN CABINETS

OUR PLANT is definitely geared to mass production of steel kitchen cabinet units. Studies have been made, and are continually being made as to methods, material and equipment to improve quality, increase production and reduce costs. These three factors form the basis and the foundation for every successful operation.

Regardless of type of kitchen cabinet unit, such as sink cabinet, wall cabinet or base unit, the complete cabinet parts are suspended, in succession, on an overhead monorail conveyor which moves through a 6-stage power washer. This loading pattern remains unbroken throughout the entire surface preparation and finishing system. If any particular part is removed be-

By EDWARD SCHNEIDER, Finishing Superintendent
American Kitchens Division of Avco Manufacturing Corporation

The equipment layout, operations performed, tests made, conditions maintained—these, plus numerous details developed through long experience, are directed toward producing an attractive, uniform and enduring finish on all units that make up American Kitchens.

cause of a defect, it is immediately replaced with a similar part. After leaving the final bake oven, the parts proceed to assembly lines where complete units are readily available to assemblers.

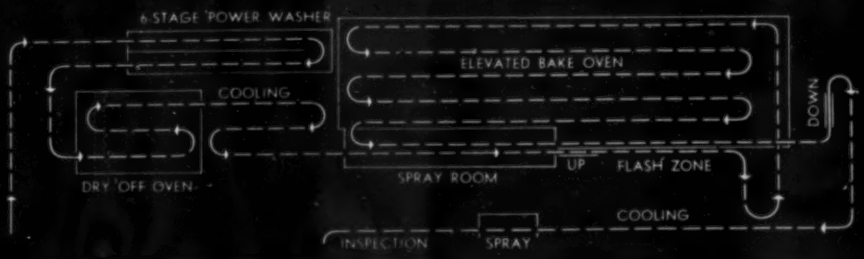
Steel Surfaces Cleaned And Rust Proofed

Before parts enter the power washer, operators brush the doors, drawer fronts and inside surfaces of cabinets with a solvent to remove all traces of insulating material and brazing flux which would be difficult to remove in the metal washer. Here is what takes place in the power washer:

1)	Alkali with emulsion	180° F.
2)	Hot water rinse	170° F.
3)	Cold water rinse	
4)	Phosphate solution	155° F.
5)	Cold water rinse	
6)	Chromic acid solution	155° F.

All solutions are titrated every hour and chemicals are added as required to maintain established levels of strength.

The power washer is built in a U-shape with three stages on each leg. At the exit end of the washer the overhead conveyor makes a sharp descent which causes the cabinet parts to tilt at this point. This tilting facilitates the draining of solutions before the parts enter the dry-off oven where all moisture is evaporated in a heat maintained at a temperature of 375° F.



This conveyor travels at a speed of 19-f.p.m. Trolley wheels are spaced on 2-ft. centers and racks on 4-ft. centers. All racks are protected with an overhead, rectangular shield to prevent dirt and foreign particles from falling on freshly coated parts. This simple protective device has real merit. [*To page 30*]

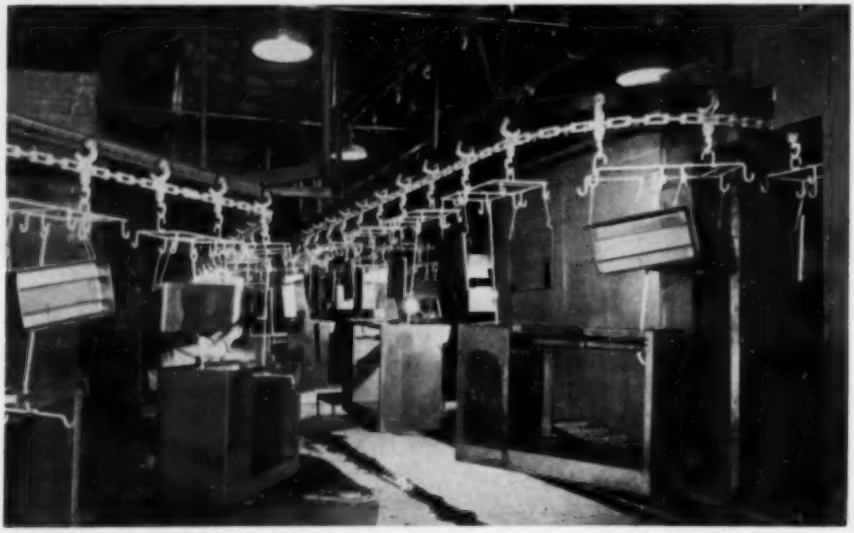
Cabinet parts travel for ten minutes to cool before they are blown off and tack ragged. These operations are performed just outside the spray booth with the conveyor traveling at the lowest practicable level. We have two reasons for this arrangement. First, it is more convenient for workers to clean the parts; second, it permits a rather sharp rise in the conveyor chain to a higher level just inside the spray room. This rise in the conveyor tilts the cabinet up at one end as it travels so that the first operator can conveniently spray the bottom of the cabinet.

Spray Room is Pressurized; Filtered Air Admitted

Our down-draft water-curtain spray booth is 90-ft. long and, being enclosed, it is virtually a pressurized spray room. Outside air passes through self-cleaning oil filters, then through indirect oil fired heaters and is fed into the spray room through replaceable fiber glass filters in greater volume than is removed from the room by the exhaust fans. This pressurization prevents dust and foreign matter from entering the spray room, to settle on freshly coated work.

Nine operators work in this spray booth; four coat one side of the cabinets and five spray the other side. Cabinets receive their first coat of white enamel followed by 1½ minutes flash (air drying) time. Then the second coat of the same enamel is sprayed, making a double wet coat which produces a dry film thickness of 2 mils.

White synthetic enamel, having a viscosity of 25 seconds at 80° F., as



The workman, almost hidden behind conveyor at left, applies solvent before parts enter the U-shaped washer. Conveyor on right brings parts back from washer to dry-off oven entrance.

MIBK

The No. 1 medium-boiling solvent for nitrocellulose lacquers . . . for vinyl lacquers

For over-all performance and economy in lacquer formulation there is no substitute for methyl isobutyl ketone, because only MIBK has the solvent characteristics which permit formulating at top diluent content or top solids concentration.

And you need not tie up your bulk storage with extra solvents. Standardize on MIBK . . . the superior medium-boiling solvent for both nitrocellulose and vinyl lacquers.

MIBK is one of Shell's *quality* solvents which include among others MEK, MIBK, and IPA. Your Shell Chemical representative will be happy to discuss with you in detail the advantages to be gained from using MIBK in your lacquer formulations. *Just phone or write.*

Send for your copy today

SHELL CHEMICAL CORPORATION

Chemical Partner of Industry and Agriculture

Eastern Division: 500 Fifth Avenue, New York 36 • Western Division: 100 Bush Street, San Francisco 6
Atlanta • Boston • Chicago • Cleveland • Detroit • Houston • Los Angeles • Newark • St. Louis
IN CANADA: Chemical Division, Shell Oil Company of Canada, Limited • Toronto • Montreal • Vancouver

measured in a No. 4 Ford cup, is supplied to the spray booth through paint heaters set at 170° F. and is sprayed at an atomizing pressure of 70-lbs. and a fluid pressure of 21-lbs. We are assured of uniform results in our paint application regardless of inside or outside air conditions.

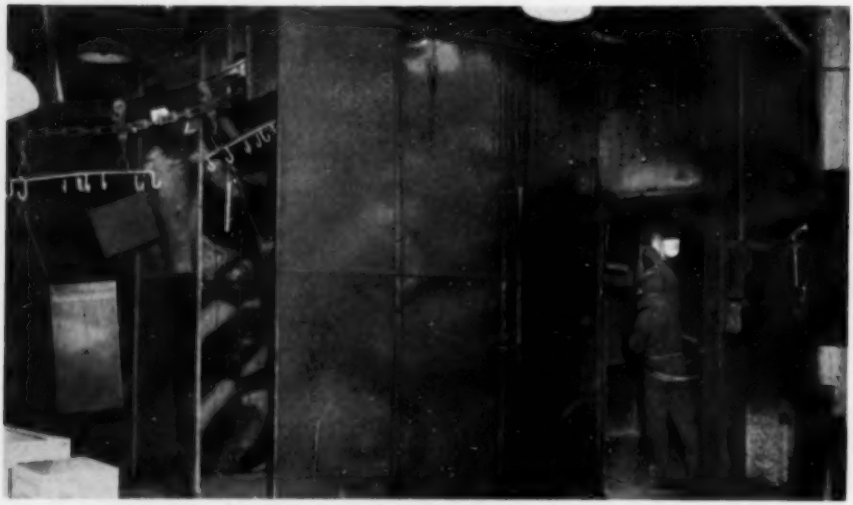
The viscosity of our enamel is carefully controlled in the paint mixing room. Thermostats remain constant on the paint heaters, therefore the actual viscosity of the enamel applied to the steel surfaces remains constant regardless of seasonal changes in the atmosphere.

Cabinets and parts travel four minutes to provide a flash period for the second enamel coat before they enter an indirect oil-fired convection oven where the finish is baked for 42 minutes at 285° F.

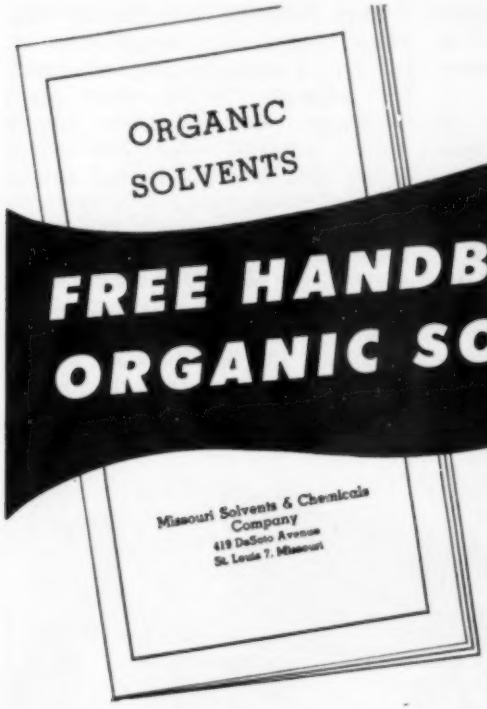
Where "Toe Border" Black Is Sprayed On

As cabinets and parts cool, while traveling toward the assembly lines, the conveyor passes through a small water curtain spray booth. Here a 4-in. wide black toe border is sprayed on the lower face of the sink cabinet, base units, and utility cabinet.

Just before these particular units enter the spray booth a 1-in. strip of masking tape is applied to protect the white finish above the border, and also to insure a straight line for the border. For further protection from overspray, the operator holds a light weight, rigid metal shield against the masking tape as he sprays black lacquer to produce the border. As the metal is still warm, this lacquer coat dries in about ten minutes. [*To page 34*]



At left is entrance to spray room. Notice how the sharp rise in the conveyor chain tilts the cabinets as they travel forward, so an operator can conveniently spray all underside surfaces.



FREE HANDBOOK ON ORGANIC SOLVENTS

Tells about

- **FLASH POINT**
- **TOXICITY**
- **DRY TIME**
- **SOLVENT POWER**

This new revised book explains the properties and applications of key organic solvents in non-technical language. 64 pages packed with facts including definitions, comparison tables, testing methods and product description. It is pocket-size for easy reference. To get your free copy write or call your nearest Solvents & Chemicals Group member today.

SC Solvents Chemicals Group Member — ASSOCIATED FOR BETTER SERVICE TO CONSUMERS

THE SOLVENTS & CHEMICALS GROUP

Distributors for America's Leading Producers

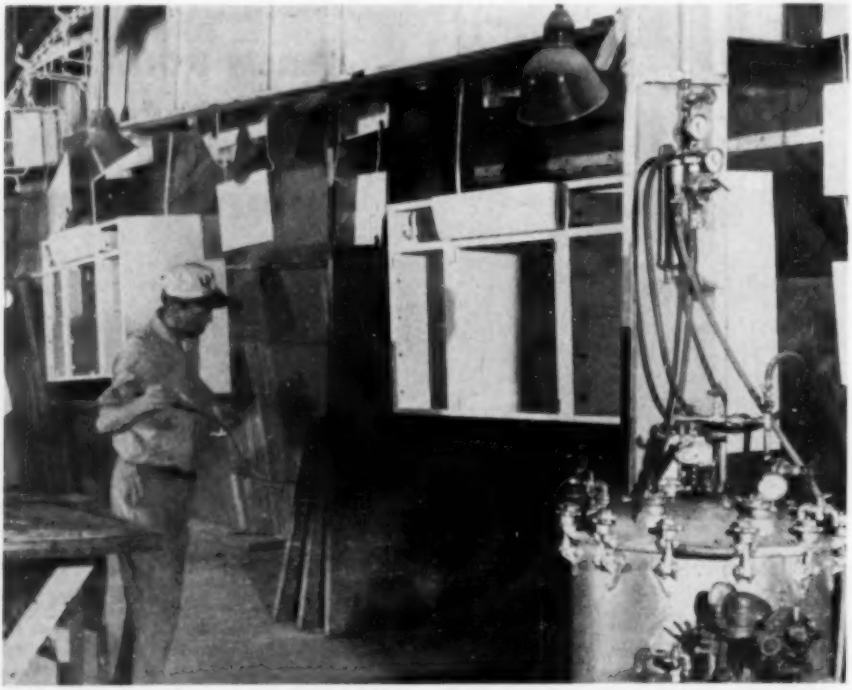
Consult your telephone directory for the address of your nearest Group member:

BUFFALO: Buffalo Solvents & Chemicals Corp.
CHICAGO: Central Solvents & Chemicals Co.
CINCINNATI: Amsco Solvents & Chemicals Co.
CLEVELAND: Ohio Solvents & Chemicals Co.
DETROIT: Western Solvents & Chemicals Co.
FORT WAYNE: Hoosier Solvents & Chem. Corp.
GRAND RAPIDS: Wolverine Solv. & Chem. Co.
HOUSTON: Texas Solvents & Chemicals Co.
INDIANAPOLIS: Hoosier Solv. & Chem. Corp.
MILWAUKEE: Wisconsin Solv. & Chem. Corp.
NEW ORLEANS: Southern Solv. & Chem. Corp.
ST. LOUIS: Missouri Solvents & Chemicals Co.
TOLEDO: Western Solvents & Chemicals Co.

Just beyond the toe-border spray booth the conveyor passes under a battery of fluorescent lights where final inspection is made.

We have two identical surface cleaning and preparation lines, spray rooms, and ovens where cabinets and parts are finished. All enamel is checked and tested by our quality control laboratory when it is received. This laboratory tests the dry film thickness and gloss of the white enamel three times daily. It also makes tests for humidity failure, hardness and grease resistance once a week. Test panels are run through the system for these tests.

Each finishing room has an individual central paint supply room located in a separate fireproof building adjacent to the main plant buildings. Each of these supply rooms contains four 120-gallon tanks used for mixing and supply through paint circulating systems. Enamel passes through two filters before it enters the circulating systems. In each of these buildings we have storage racks capable of holding as many as 180 drums of material. The buildings are heated, to near 82° F. so that the enamel and solvent are always warm and free flowing. [END]



In this small water curtain spray booth, black lacquer is sprayed over the lower face edge of tape-masked cabinets to form a neat looking and effective toe border. The completed border may be seen on cabinet hanging from overhead conveyor just beyond and back of operator.

All chemists wear white coats!

Unlikely and unimportant but even if they look alike there's an important difference between them. KLEM chemists have dealt with almost every conceivable problem in their field. Their extensive experience enables them to more readily comprehend plant situations than ordinary chemists. The KLEM laboratory, equipped with the finest technological equipment for duplicating exact plant conditions and procedures, enables them to determine the correct answer to tough problems.

Let us help eliminate your bottlenecks, assist you as we have others in establishing profitable production schedules.

Representatives in most industrial areas.

KLEM PRODUCT of the MONTH

MINIT KOTE

Cleans, neutralizes, phosphatizes in 60 seconds. Frees metal surfaces from all traces of oil and dirt. Deposits light, uniform, phosphate coating for better adhesion of paint to ferrous metals and aluminum. Write for details.

3 OF 20 STANDARD KLEM PRODUCTS

KLEM STRIPPER No. 73—Heavy duty hot stripper for paint and enamels, rinses easily, eliminates hand scrubbing.

WATER WASH COMPOUND No. 203—Stops corrosion, keeps lines clean, prevents adhesion of paint to water curtain. Excellent for recovery.

RUST-SOL No. 124—Concentrated phosphoric acid surface conditioner. Removes oil and rust. Provides slight etch to promote adhesion of paint. Meets USA 3-213, TAC-E5431 and MIL-C-10578.

KLEM Chemicals Inc.

14401 LANSON . . . DEARBORN, MICHIGAN

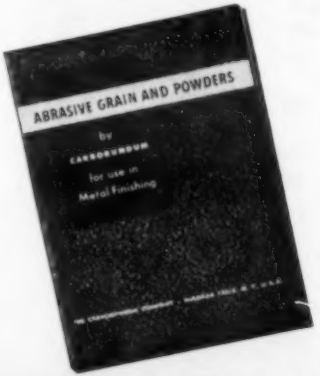
There's ONE Grain HERE that's right for YOU

GRAIN TYPE	CHARACTERISTICS	PRIMARY USES
ALOXITE TP **Aluminum Oxide**	Tough, blocky. Standard grit sizes from 16 through 220.	Polishing operations involving heavy stock removal on steel and other high tensile strength metals.
ALOXITE TPT **Aluminum Oxide**	Tough, sharp. Grits 16 through 100.	Polishing operations involving removal of large amounts of metal (e.g. plowshares).
ALOXITE TPL **Aluminum Oxide**	Very sharp, friable. Grits 16 through 220. (It fractures during use, thus reduces loading of the wheel surface).	Polishing low tensile strength metals—copper, brass, bronze, aluminum.
ALOXITE TPC **Aluminum Oxide**	Medium sharp. Grits 16 through 220.	General purpose polishing grain—for removal of small amounts of metal.
ALOXITE TPW **Aluminum Oxide**	Powder. Grits 240 through 1000.	As the abrasive in paste heading of polishing wheels and belts.

...are you using it?

CARBORUNDUM RA Silicon Carbide	**Sharp, very friable. Grits 10 through 240.**	**Polishing cast iron.**
CARBORUNDUM RA Silicon Carbide	**Powder. Grits 280 through 600.**	**General purpose polishing.**

HERE'S THE BOOKLET that tells you everything about the finishing of metals with abrasive grain and powders ... how to size, cast and cure your polishing wheels—how to recondition used wheels, etc. Also full discussion of metal buffing, tumbling, blasting and litho plate graining with abrasives by CARBORUNDUM. Send for your copy today. No charge—no obligation. Just write to Dept. IF 83-51.



CARBORUNDUM

TRADE MARK

the ONLY source for EVERY abrasive product you need

"Carborundum" and "Aloxite" are registered trademarks which indicate manufacture by The Carborundum Company, Niagara Falls, New York

83-51P

IS THERE A BETTER WAY TO COAT YOUR PRODUCT?

An Egyptian Industrial Finishes Specialist can help you find it.

Egyptian's outstanding reputation for finding "A BETTER WAY" makes your Egyptian Specialist and the ingenious Lab. Technicians behind him "all star selections" for your product planning team.

Their highly specialized knowledge can help make your product look better... wear better... sell better. Often their suggestions have broken seemingly impossible finishing bottlenecks, appreciably cutting overall finishing costs... they can keep you constantly informed of new finishing techniques and how you can benefit by them ... Your Egyptian Specialist can point out the advantages of the dip, spray, roller coat, tumble, hot spray and electrostatic application methods. He can tell you the required specifications for finishing any Government Product.

If there IS a better way..."Egyptian Finishing Know-How" can help you find it. Invite an Egyptian Industrial Finishes Specialist to call on you today.

EGYPTIAN
INDUSTRIAL FINISHES

SYNTHETICS • VARNISHES
LACQUERS • ENAMELS

The EGYPTIAN LACQUER MANUFACTURING CO.

Box 444, Newark 1, New Jersey
Plants: South Kearny, N. J. • Lafayette, Ind.

Change Setup to Add New Product

Adding a new product to the line called for facilities with which to put on a special high bake prime coat. An auxiliary dip-bake conveyor parallel to the main one, plus an operator, solved the problem effectively.

BY C. C. MONTGOMERY

MODERN ovens have helped make possible flexibility in product finishing systems. This fact was forcefully brought to my attention in a recent conversation with a manufacturer of metal cabinets for service in homes and industries. The concern had a conventional finishing system consisting of a 6-stage power washer, dry-off oven, spray room and bake oven, all serviced by an overhead conveyor. A double wet coat of white, green or OD was sprayed on and baked.

The company decided to produce a dishwasher. The inside surface of this washer was coated with vitreous enamel; however, the door of the cabinet was to receive a coating of white synthetic enamel, with a dry film thickness of 2-mils. So far this new job representel no problem but in the fine print of the specifications it developed that this door was to be prime coated with a flat black alkali resistant material to be cured for 22 minutes at 400° F. This high heat prevented any use of the final bake oven, as all of the top coat materials were baked at 325° F.

Add a Light Conveyor, Dip Tank and Oven

Here is how the problem was solved: Adjacent to the dry-off oven the firm put in a combination infrared electric convection oven having a heat range up to 600° F. The width of this oven could be materially reduced in comparison with the final bake oven, as it was to be used for only dishwasher cabinet doors. A light weight overhead conveyor passed through the oven and extended parallel with the main finishing conveyor to a point just outside the entrance to the spray room.

Auxiliary Setup Puts on Bake Prime Coat

Here is how the new setup operates: Doors for dishwasher cabinets (along with other products) move through the power washer and dry-off oven and cool as they travel toward the spray room. Just outside the spray room an operator removes only these doors; he dips them into the black primer (in a narrow portable dip tank) and then hangs the doors on the light weight overhead conveyor which carries them through the combination infrared electric convection oven.

When the system is in full operation, every time the operator removes a dishwasher cabinet door from the main conveyor, to prime

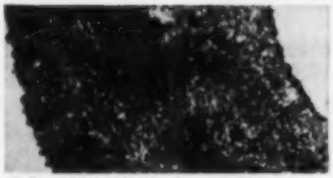
dip it, he replaces that door with one that has been around the loop —primed and baked. As a result, the loading pattern of the main conveyor is not disrupted. The primed steel doors go through the spray room and receive a double wet coat of white synthetic enamel.

Reprocessing of recovered paint, as done by experts, can turn out usable paint that's profitable.

Proved In Industry

Prep-n-Cote

An Established Iron Phosphate Coating and Cleaning Product



Ordinary Solvent cleaning, (magnified 5 times) completely failed at 72 hours under salt spray fog. A.S.T.M. Spec. B-117-T-44.

Prep-n-Cote panel, (magnified 5 times) after 704 hours exposure to salt spray fog. A.S.T.M. Spec. B-117-T-44.

Prep-n-Cote can be used in Mild Steel Industrial Spray Washer Equipment

- From 2 to 6 Stages
- In Steam Gun Operation
- In Dip Tanks
- Also Acts as an Excellent Metal Cleaner
- Provides Superior Paint Bond and Corrosion resistant Properties to Metal Surfaces.

Write for Bulletin 52-116

NEILSON CHEMICAL CO.

MANUFACTURERS OF METALPREP

2443 Tecumseh Rd. Windsor, Ont. | 6562 Benson St., Detroit 7, Mich. | 3411 Union Pacific Ave. Los Angeles 23, Calif.

Purchasing Agents Versus Salesmen

THE following deductions are based on my experience from both sides of the desk, so I will only point out a few pros and cons for both sides. This might tend to ease the friction and provide a better relationship between the two leading representatives of industry.

The purchasing agent (sometimes referred to as a "glorified clerk" by the salesmen) is the direct representative of the firm by whom he is employed. This agent should be a diplomat as well as a shrewd and capable buyer. His time is valuable and he could use it to a good advantage for his employer if he would cooperate with the salesmen by referring them directly to the key man in his organization who controls the purchase of the commodity the salesman has to offer.

Purchasing agents would find that very few salesmen would take advantage of the privilege of contacting THE man behind the "Iron Curtain" to make his presentation. A good salesman will continue to call

NEWCOMB-DETROIT

PIONEERS IN ENGINEERING, MANUFACTURE AND INSTALLATION OF

INDUSTRIAL OVENS
SPRAY BOOTHS
PARTS WASHERS
DUST COLLECTORS
AIR SYSTEMS

ESTABLISHED 1912

DETROIT DIVISION—GRAND RAPIDS DIVISION—
NEWCOMB INDUSTRIES LTD., WINDSOR DIVISION

For Bulletins and Quotations, Wire, Write or Call—
NEWCOMB-DETROIT
5753 Russell St.,
Detroit 11, Mich.
TR 3-2100

back and take up someone's time until he does get in to see the right man. Why not eliminate all of this costly waste of time for everyone concerned by giving the salesman the correct line of procedure on his first call? You can't tell; he might have a gold mine for your employer.

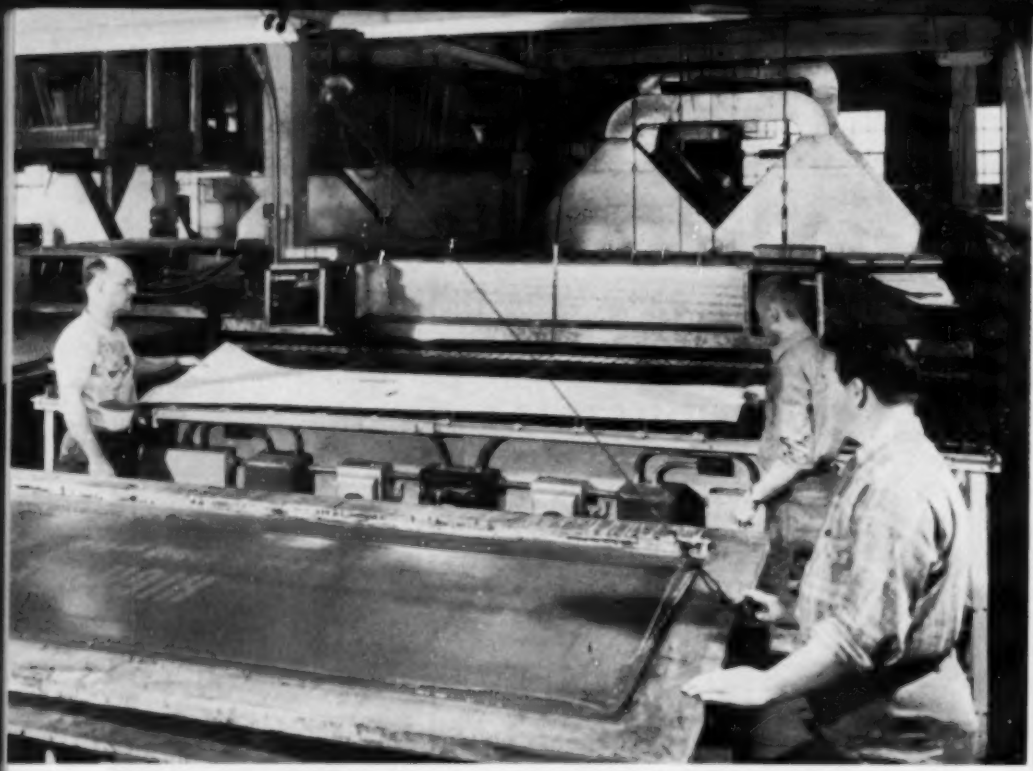
We all know that the purchasing agent has no desire or power (in most cases) to buy anything until someone else has signed a requisition for the merchandise needed. Why do the majority play "Big Shot" and act important when, in reality, all they are doing is wasting their time as well as the salesman's time with needless interviews.

On the other hand, the salesman (commonly referred to as "peddlers" by the P.A.'s) who "honey-up" to the purchasing agents to be in line for the next requisition that comes up from the stock room cannot, by any stretch of imagination, be termed anything other than "order-takers." A true salesman is the one who can and does create the desire to buy—not merely be a "Johnny at the rat hole" when someone decides that they must have some more supplies in order to continue business.

No salesman should want to sell anything that is not a benefit to the buyer. If he recommends and sells his product on this basis, his name will definitely be on the preferred list on all future purchases by companies that he has served well.

The purchasing agent's time is valuable to his firm. He is responsible to his entire organization in expediting the supplies needed to keep production moving and orders filled on schedule. A good salesman will train himself to "sense" the time limit on

(Continued on page 66)



Entrance to conveyorized force drying unit. Each unit has two fans—one at left and one at right—which blow air over electric heaters and into the drying chamber. Hoods and piping, in upper right background, exhaust the volatile solvent fumes from the drying chamber.

HOW WE DRY SCREEN PROCESSED CARDBOARD AND PAPER MATERIALS

BY STANLEY CYGAN
Superintendent, Poster Products, Inc.

FOR VOLUME production, and to obtain flexibility of operation, we use both air dry and force dry methods for drying silk screen processed materials. It would be almost impossible to separate the various classes of work dried by either method, for this depends upon the size of the sheets, time in which to complete the work, number of colors, and the availability of conveyorized drying units at the time the work is processed.

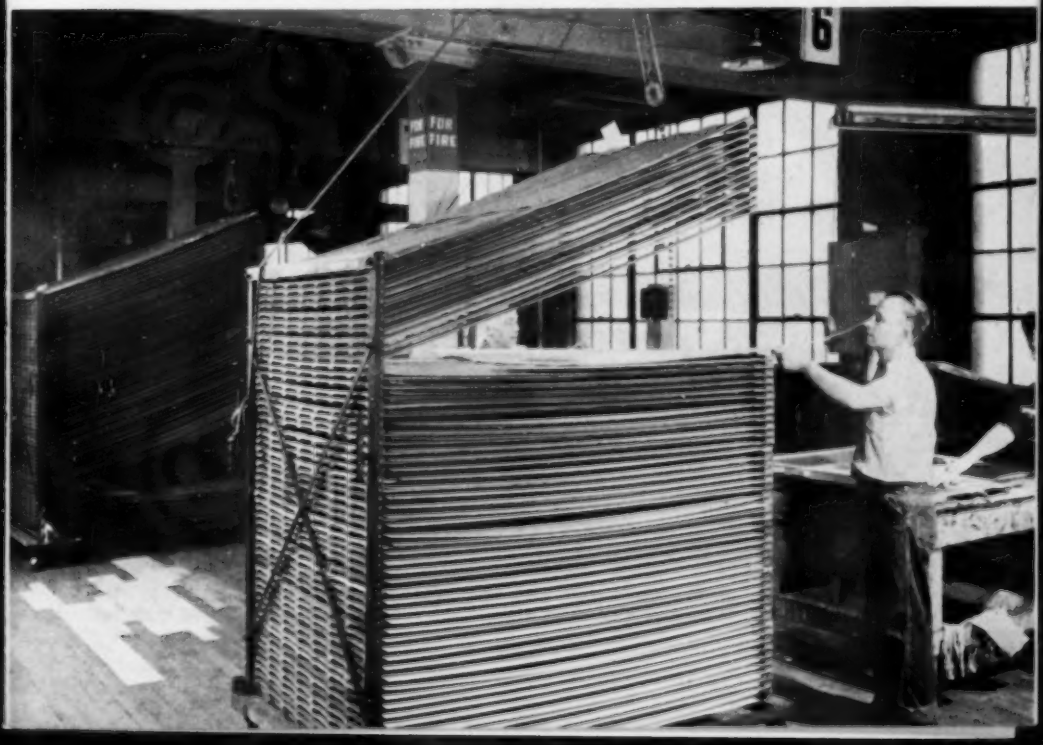
For air dry work, racking has been speeded up and simplified through the use of hinged racks illustrated in one of the accom-

panying pictures. Each unit consists of 55 racks 44-in. by 60-in. hinged one directly above another to a steel frame at one end of the unit. The racks of each unit are mounted on a low base supported by 3-in. swivel casters so that the unit can be moved to and from the various printing setups. Each rack will take a 45-in. by 60-in. standard size cardboard poster. Two, three or more of these portable units may be hooked together side by side to accommodate extremely large posters, say any size up to 60-in. by the multiple of 45-in. in length.

At the start of an operation, all of the racks are lifted (at one end) by a block and tackle arrangement from above. Each rack is connected to the next one by an interlocking chain at the front or opening end, so that each rack can be lowered into position, one at a time.

When all of the racks are filled, the loaded unit can be rolled out of the way to make room for an empty unit. These rigid, portable units eliminate all danger of either the printed sheets or individual racks from sliding off on the floor. The operation is speeded up due to the fact that the racks are convenient and merely have to be lowered as a printed sheet is placed in position for air drying. [*To page 44*]

Hinged portable racks for air dry work. All racks are raised by block and tackle. The raised open ends—like the leaves of a book—remain together by means of an interlocking chain; then, one at a time, the up raised racks are lowered as printed work is laid in position to dry.

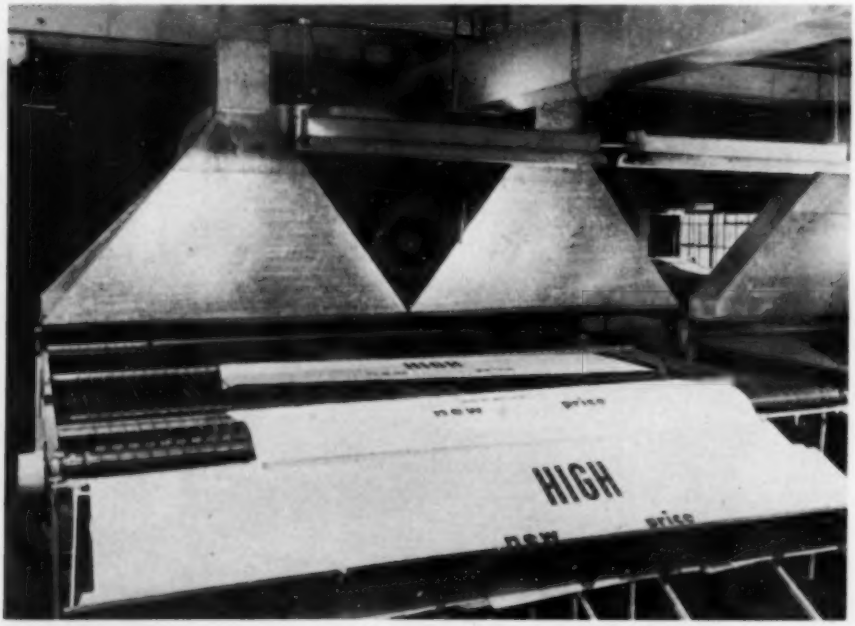


Multiple Color Work Goes Through Conveyor Oven

For quick drying and fast operation, the convection type, conveyorized, force dry units are fine for multiple color work. I have shown one of these units in the accompanying sketch and pictures.

This unit is 14-ft. wide by 40-ft. long and contains two sections of belt conveyors driven through variable speed drives having a speed range of from 5 to 15-f.p.m. The two sections of conveyor belts, operated by push button controls located on the frame of the unit, can work simultaneously in the same direction, or either one in opposite directions. This makes it possible to use one of the conveyors to print one color in one direction and return a second printed color back to the entrance end of conveyor, except on extremely long posters. In this operation we use fast drying silk screen process paints.

Two fans located at the entrance end of the unit blow air over ten 2000-watt Calrod plates and through a duct system into the drying chamber through which the printed work travels on the conveyor belts. This unit carries a 20-kw. load. A duct system extending across the width of the unit is connected to a stack containing an exhaust fan to remove volatile solvent fumes from the drying chamber. Beyond the exhaust system, at the open exit end of the



Out-feeding end of conveyorized force-drying unit. Cool air is forced down on the printed work, through hoods, to cool printed stock after it has passed through the drying chamber.

SOLVENTS and CHEMICALS for Product Finishing

SOLVENTS AND THINNERS for spray, dip, flow-coat, roller-coat and electrostatic finishing. Your product finish will be better through selection of solvents and thinners that best suit your needs from our complete line.

NAPHTHAS AND AROMATIC SOLVENTS. Over 26 different naphthas and aromatic solvents to select from. We can help you choose the best one for your finishing process. Call today for prices, samples and data sheets.

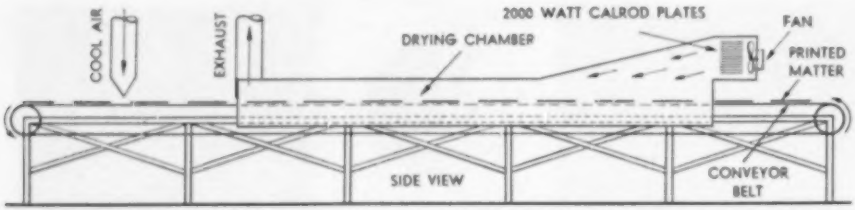
SPEEDY SERVICE. Dependable delivery. Order by drum, tank wagon, transport or tank car. Use our quick supply service. Call today.

THE SOLVENTS AND CHEMICALS GROUP

Distributors for America's Leading Producers

Consult your telephone directory for the address of your nearest Group member:

BUFFALO	Buffalo Solvents & Chemicals Corporation
CHICAGO	Central Solvents & Chemicals Company
CINCINNATI	Amsco Solvents & Chemicals Company
CLEVELAND	Ohio Solvents & Chemicals Company
DETROIT	Western Solvents & Chemicals Company
FORT WAYNE	Hoosier Solvents & Chemicals Corporation
GRAND RAPIDS	Wolverine Solvents & Chemicals Company
HOUSTON	Texas Solvents & Chemicals Company
INDIANAPOLIS	Hoosier Solvents & Chemicals Corporation
MILWAUKEE	Wisconsin Solvents & Chemicals Corporation
NEW ORLEANS	Southern Solvents & Chemicals Corporation
ST. LOUIS	Missouri Solvents & Chemicals Company
TOLEDO	Western Solvents & Chemicals Company



Side view diagram of conveyorized drying unit for force drying screen processed cardboard.

unit, is located the cooling system which is equipped with a series of hoods through which cool air is forced down upon the printed work.

Experimenting Taught Us About Force Drying

We experimented on a pilot basis with various types of force drying methods and equipment. Working with colors is always a tricky business. Some colors dry much faster than other colors, therefore the conveyor speed must vary according to the color being used. The purpose of any force dry unit is simply to dry the process material as quickly as possible without unduly heating the stock. Of course, there must be correct balance between the heated air injected into the drying chamber and the volume of air removed through the exhaust system. To properly dry the printed matter, the heated air must contact and circulate over the wet material before the air is exhausted through the stack.

How We Overcome The Shrinkage Problem

With any type of force drying there is always the problem of shrinkage which seriously affects close registration on certain jobs. There is no constant rule on shrinkage. Some batches of stock will shrink more than other batches. In certain seasons of the year, when relative humidity is extremely high, shrinkage will increase. At these times, where exceptionally close registration is required, we preseason the stock by running it through the force dry unit at full heat and increased conveyor speed before printing the first color. This cuts down the problem of shrinkage and promotes very fast and efficient production.

Screen Process Drying

AT THE Cleveland, Ohio, meeting of the Screen Process Printing Association, members presented detailed descriptions of three drying installations that had proved to be practical for screen process work.

Mr. Milton Grant was the first to present his installation. The basic concept of its design incorporates the following five points:

1) The unit is suitable for running more than one job at the same time.

2) The unit takes little floor space. It is, of necessity, of overhead design.

3) Its dimensioning was planned to suit standard paper and cardboard sizes—width of 48-in.

4) The unit incorporates an adaptability of heating elements for various types of jobs requiring individual controls.

[*Continued on page 48*]

Lacquers • Sealers

STAINS
GLAZES
FILLERS
ENAMELS
UNDERCOATS
SHELLAC
SPECIALTY FINISHES

•

Lacquers and Sealers in a wide variety of specifications. High or low solids. Glossy or flattened. For hot or cold spraying, for dipping or for special application methods. Tested for durability.

IN STEP WITH THE TIMES

JAMES B. DAY & CO.

CHICAGO 14

SILK SCREEN
COLORS • SUPPLIES
EQUIPMENT

Free
Catalog

64 Illustrated pages of materials information & instruction

Print simply on . . .
DIALS, CHASSIS, GLASS, PLASTICS, METALS, MASONITE, Etc.

"Ready-to-Print"
SCREEN SERVICE

ADVANCE PROCESS SUPPLY CO.
1402 W. HARRISON ST. CHICAGO 7, ILL.

YOU
can rely on
RANDOLPH

FOR PROMPT SHIPMENT IN ANY QUANTITY OF

PERFORMANCE PROVED
GOVERNMENT SPECIFICATION
FINISHES

•

Lacquers • Enamels • Dopes • Thinners
Clear Metal Finishes • Colored Lacquers
Clear S.G. for Metal • Texture Enamels
Specialized Production Finishes
Aircraft Finishes

•

RANDOLPH
PRODUCTS CO.
CARLSTADT, NEW JERSEY

5) The unit is adaptable for both hand and machine production, hence equipped with variable speed control.

The next speaker was the past president of the Association, Mr. John Key, who read a paper entitled "A Report on a Drying Conveyor as Installed at the Admiral Screenprint Corporation in Chicago." A brochure containing a description and pictures of his equipment was distributed to those present.

Mr. Key gave the committee a vivid account of the development work in which his organization had engaged. He described the hard and lonely struggle of a screen processor in this new and tricky field of building drying equipment. The great detail in which Mr. Key's paper discussed the problem was evidenced by the fact that he covered no less than 14 separate points in his specifications. Even though the project was carried to successful fruition and the output of a highspeed press is being dried without loss of quality, Mr. Key is not satisfied. He is looking to the future and wants equipment that will be able to produce the same volume of work as will similarly priced equipment in other graphic arts methods. Here are his conclusions in his own words:

"New presses advertised at 3000 per hour are already being offered and higher speeds will very likely be developed in the near future. Ink manufacturers are evolving new products and techniques to perform consistent with such speeds. In view of such forthcoming developments, this particular conveyor is inadequate, and approaches to creating adequate drying equipment must be taken co-laterally with the advances being made in press building, ink manufacture, heating elements and air movement techniques. It is hoped that the Research Committee of the Screen Process Printing Association, International, will properly identify this problem and

(Continued on page 122)

SPRAYON "PUSH-BUTTON" TOUCH UP

touch up your products anytime, anywhere... factory-perfect job every time!

YOUR OWN FINISH FROM YOUR OWN SOURCE

In use by industrial leaders in every field, the Sprayon Self-Spraying Touch Up Tool ends your touch up problems. Protect the eye-appeal of your product—get an extra bonus of customer satisfaction—and do it with big savings in time, cost and equipment investment! Sprayon goes right to your source for your own touch up finish, custom-loads the Tools for you under your own label. Exclusive Sprayon features mean even unskilled help do a factory-match job in minutes...for pennies. Use it anywhere—from your own production line to the final customer. Nothing else to buy—it's a disposable low-cost constant-pressure spray gun—a complete paint shop in a can!

WRITE TODAY FOR YOUR FREE "PUSH-BUTTON" FOLDER

SPRAYON PRODUCTS, INC.

2075 EAST 65 STREET
CLEVELAND 3, OHIO

SPRAYON *Self Spraying* TOUCH UP TOOL

The Irwin Contemporary Collection is featured in the October issue of *House & Garden*. A unique feature of the line is its use of tubular brass, glass and white marble, with wood, in suggested settings of white or muted-color walls and clay tile floors to enhance the feeling of lightness and simplicity achieved with the furniture.

New Calvin Company

features the finish . . .

expands sales . . . on new "Irwin Collection"

For the exciting new "Irwin Collection" of contemporary furniture designed by Paul McCobb, a finish was wanted that would retain the unusual light, gray-green color of the wood, without darkening unduly with age or exposure to light.

The result? *Sandrift*—formulated and developed with the help of Sherwin-Williams technicians. "Sandrift" is a quality finish that gives full play to the luxurious quality of mahogany . . . lets customers *see* the wood in all its natural beauty and depth of grain.

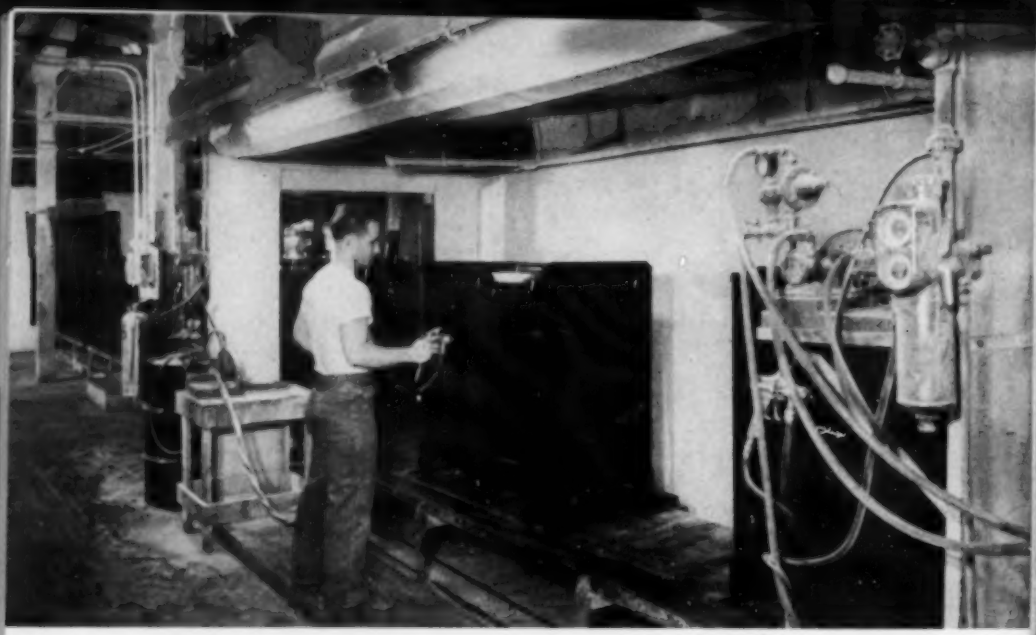
To help dealers capitalize on this sales feature, The Calvin Company, which recently purchased the working operations of the Robert W. Calvin Co. in Grand Rapids, identifies the finish on each piece with a Sherwin-Williams "Custom Finish" tag.

No other trade-mark in the world says, "This is a quality finish," to so many people, so quickly. This progressive new company, now completing an ultramodern new $500,000 plant to fill demands for the "Irwin Collection", is one of many which are profiting both from Sherwin-Williams technical help and Sherwin-Williams acceptance.

Sherwin-Williams tags, seals and decals are available to manufacturers using quality Sherwin-Williams product finishes, applied in an approved manner. They offer important added reasons for looking into the advantages of these outstanding product finishes.

Ask your Sherwin-Williams Representative for copy of new brochure B-767, *How to Make the Finish Help Sell the Product,* or write The Sherwin-Williams Company, General Industrial Division, Cleveland 1, Ohio.

SHERWIN-WILLIAMS
INDUSTRIAL FINISHES



Spraying first coat of lacquer. This air dries briefly before cabinets enter oven at left.

Mass Production Finishing of TELEVISION CABINETS

BY P. C. BARDIN

EVERY individual familiar with wood finishing knows that the quality of a final finish depends primarily on correct surface preparation. It is for this reason that the management of Smith Cabinet Mfg. Co., Salem, Indiana, has provided facilities for some prefinishing operations to take place long before its TV and radio cabinets reach the finishing room.

Before assembly all exposed plywood parts are belt-sanded with No. 3/0 sandpaper. Then the panels are given a spray coat of glue size and run through a conveyorized dryer for nine minutes at 130° F. The glue size is made up of eight parts of water to one part of animal glue jelly. The water used in making this glue size contains an alkali solution made up in the proportion of 6-oz. of baking soda to five gallons of water. This is done to neutralize

[PAGE 52]

any fatty acids that might be present in the glue. If these were not counteracted, they might have a damaging effect on the finish later.

The wet glue size not only raises short surface fibers of the wood but it also hardens them so that when the panels are belt sanded with No. 4/0 sandpaper the raised fibers are actually cut off clean instead of being pressed down flat again. Also, the glue size has a tendency to uniform the entire wood surface. As a result of this operation, the surface of the cabinet, after assembly, is not only smooth but it is clear and clean.

Inside of Cabinets Sprayed With NGR Stain

When cabinets arrive in the finishing room they are thoroughly inspected. Then only the inside surfaces are spray coated with an NGR stain. This operation is done in six spray booths located just inside the finishing room. In order to provide the flexibility needed for handling several different kinds of finishing, these stain booths are not served by a conveyor. The Smith Cabinet Co. manufactures several different sizes and types of cabinets in mahogany, walnut, oak,

All exposed plywood parts of cabinets are given a spray coat of glue size before assembly, then sent through oven to dry for nine minutes. They are then sanded with No. 4/0 sandpaper.

The filler-stain booth is far in background at right. Padding in and clean up operations follow. Paper backing is removed from fancy wood transfers along this slat conveyor line.

maple, etc., so naturally different finishing procedures are used.

Combination Stain and Filler is Sprayed

Mahogany and walnut cabinets are placed on one of the four filler conveyor lines. All conveyors for console model cabinets are of the cross-slat type, 18-in. above floor level, and driven through a variable-speed drive which has a speed range up to 5-f.p.m.

A combination stain and filler is sprayed at an atomizing pressure of 25-lbs. and a fluid pressure of 15-lbs. This is allowed to flash (air dry) for five minutes before the filler is skillfully padded in with a portable air-driven padding machine. Sides of the cabinet are hand padded, and tops are given a second padding by hand. Then follows clean-up operations including the removal of all protective paper backing from the fancy grain transfer adhered to cabinet doors. The filler coat is force dried in a conveyorized oven for 96 minutes at 140° F., with 7% relative humidity in the oven.

After leaving the filler oven, the cabinets are allowed to cool for ten minutes; then all solid wood parts are sanded with No. 320 sandpaper and "blown off" clean with air guns. This is an off-conveyor operation and, together with the separate filler oven, it lends flexibility to the finishing setup.

Sealer is Force Dried, Then Sanded

Cabinets proceed to one of three sealer conveyor lines where a 21% solids lacquer sealer is sprayed at

THE MODERN SYNTHETIC COATING FOR WOOD FINISHING

Rel-Var

COLD CHECK RESISTANCE

Increase the cold check resistance of your present finish by adopting Rel-Var as a finish coat

PRINT RESISTANCE

and simultaneously eliminate your print or press mark worries — hot or cold

Write for detailed information
4730 Crittenden Drive
Louisville 9, Ky.

Rely on Reliance

RELIANCE VARNISH COMPANY *Incorporated*

Affiliated Factories in

ASHEVILLE, N. C. BRIDGEPORT, CONN.
CHICAGO, ILL. LOUISVILLE, KY. LOS ANGELES, CALIF.

55-lbs. atomizing pressure and 20-lbs. fluid pressure. The sealer coat flashes (air dries) for seven minutes before cabinets enter the sealer oven to dry for 20 minutes at 120° F. This oven is not humidified. After cooling for five minutes the sealer coat is thoroughly sanded with No. 240 sandpaper. Portable electric sanders are used on tops, but the sides of cabinets are hand sanded.

Before cabinets leave the sealer line they are blown clean with air guns and inspected. Then they are moved to one of five spray booths for a coat of shading lacquer where needed, after which they are then inspected for color. Again, for the sake of flexibility, this is another off-conveyor operation.

Two Coats of Lacquer Are Sprayed and Force Dried

At this transfer point, cabinets are placed on one of the two top coat conveyor lines. The first coat of 24% solids clear lacquer is sprayed at 55-lbs. atomizing pressure and 20-lbs. fluid pressure. A 10-minute flash period follows before cabinets enter an oven to dry for 30 minutes at 125° F., with 20% relative humidity in the oven.

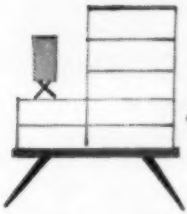
Upon leaving this oven, cabinets travel for 30 minutes to cool. Then they are inspected for bruises and defects. Burn-in and color patching operations are performed, and the trade name decals are applied.

A second coat of the same clear lacquer is sprayed at pressures

Tops are machine rubbed, followed by hand rubbing also. Fronts and sides are hand rubbed.

SPEAKING OF FURNITURE

What type of finish do you prefer?



Modern

Furniture must be distinctive. Functional design and appealing finishes are all important to attract the interest of the home maker.

Traditional

Furniture must be authentic. Grace, charm and delicate beauty lend character to this type of finish.

Both Modern and Traditional finishes are our business, since we supply finishing materials to some of the largest furniture manufacturers — and our 50 years of experience qualifies us to service the most discriminating buyers.

THE GILBERT SPRUANCE COMPANY

PHILADELPHIA 34, PA. • WINSTON-SALEM, N. C.

similar to the first top coat; this is followed by a 14-minute flash period. The second lacquer coat is dried for 1¼-hours at 130° F., with 20% relative humidity in the oven.

Machine and Hand Rubbing

After cabinets are removed from the oven they are inspected and allowed to cool for two hours before the finish is rubbed. Portable air-driven rubbing machines are used on tops, working with No. 360 wet or dry sandpaper. The lubricant is made up of 5½ parts naphtha to one part of light rubbing oil. After machine rubbing, the tops are given a second rubbing by hand; the fronts and sides of the cabinets are well hand rubbed too. A thorough inspection follows a clean-up with cheesecloth. Rubbed through places are patched, dried and rubbed again.

Polishing; Upfitting; Packing

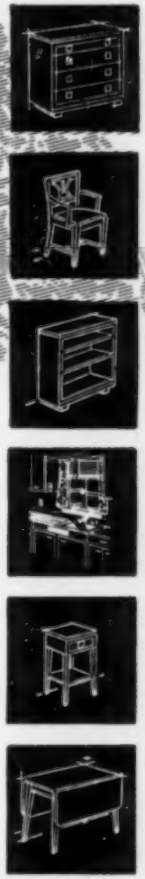
Rubbed cabinets are moved to the polishing room where a 3-M compound is used. This is followed by the application of a water-soluble liquid polish to clean up. At this station the inside and outside surfaces of all cabinets are well cleaned. Inspection follows. Small defects are color patched before cabinets are moved to the upfitters for application of hardware. Then comes final inspection and packing.

Table Model Cabinets

Because of the difference in size and weight of the table model TV cabinet, as compared with the console model, the method of handling is somewhat different. These cabinets are finished in a separate building which has three separate overhead monorail cable conveyors

In the table model TV plant. Starting far at right are booths in which operators spray the sealer, shading stain and hot lacquer. At left is touch-up booth. Conveyor is 800-ft. long.

UNICOTE
(Synthetic Undercoat)



Opens new roads for using fir and other marginal woods!

Excellent filling and holdout properties are two of the advantages which make United's UNICOTE, synthetic undercoat, ideal for use on fir and other open grained marginal woods.

When coated with UNICOTE and then covered with a synthetic enamel or other top coat, these woods give the appearance of, and can be used as gum woods.

UNICOTE is easily sanded, dries quickly, and requires only one coat. It holds down the wood grain while preventing a glossy top coat from sinking in.

A generous working sample of UNICOTE is yours for the asking. Get yours today.

PAINTS · SYNTHETICS UNITED LACQUERS · ENAMELS

United LACQUER MFG. CORP.

LINDEN, N. J. PHILADELPHIA 19, PA.

—one for filler, another for sealer, and one for top coat lacquer. All of the finishes put on in this building are air dried.

In the filler booth, the inside of each mahogany cabinet is sprayed with an NGR stain. Then a combination stain and filler is brushed on the outside surface. The filler is hand padded; after the filled surfaces are wiped clean the cabinets are hung, two to a rack, on the filler conveyor which carries them up to ceiling height to travel for four hours to dry.

Next, a 21% solids lacquer sealer is sprayed at 55-lbs. atomizing pressure and 18-lbs. fluid pressure. The operator hangs cabinets on the sealer conveyor where they travel for 45 minutes to dry. At the sealer booth both conveyors are in close proximity so that cabinets may be taken from one conveyor, sprayed and hung on the other conveyor.

Cabinets are removed from the sealer conveyor to be hand sanded with No. 240 sandpaper and blown clean before they go to the shading stain booth. After shading, this operator places the cabinets on a short section of gravity roller conveyor which carries them to the next spray booth where they are tack

In the Table Model TV cabinet plant; here is a water wash spray booth where an NGR stain is sprayed on inside of cabinets and a combination stain and filler is brushed on the outside. Padding in and clean up station is immediately behind the operator. Conveyor dips at left to allow filled cabinets to be loaded. They rise to a height and travel four hours to dry.

PERFECTION FURNITURE FINISHES

contain none of the conventional stearates or flattening agents but are flattened by synthesis giving a waxed effect and a hand rubbed appearance.

Outstanding advantages of PERFECTION FLAT FINISHES are . . . CLARITY OF GLOSS LACQUER EVEN IN LOWER SHEENS . . . SMOOTH . . . WON'T HAZE OR SWEAT BACK . . . WATER PROOF . . . LIQUOR PROOF . . . GRADES SUITED TO BUDGET AND DRYING TIME.

WRITE FOR SAMPLES

SEE THE DIFFERENCE
FEEL THE DIFFERENCE

Perfection PAINT & COLOR COMPANY
INDIANAPOLIS 2, INDIANA

ragged before a coat of hot lacquer is sprayed on. This is a 32.2% solids lacquer which passes through a circulating type of paint heater set at 160° F. The material hose is 6-ft. long from the heater to the spray gun so the material temperature is about 154° F. at the gun. It is sprayed at an atomizing pressure of 65-lbs., and a fluid pressure of 20-lbs.

After the top coat of hot lacquer has been applied, the cabinets are hung on the finish conveyor (800-ft. long) to air dry overnight. Next morning they are sent to the upfitters for application of hardware; then they move on through inspection and to the packers.

Nothwithstanding the large volume of mass production finishing on so many different kinds of TV and radio cabinets, the company maintains an excellent quality of finish on all of its products. Even though several production lines are parallel to each other, finishing operations and facilities occupy a huge area—certainly more than one foreman and possibly one assistant could adequately cover. Mr. H. E. Simpson, Plant Superintendent, is in charge of production and maintenance.

Charles Geralde is manager of quality control, and helps to solve problems in both the cabinet shop and finishing room. Robert Pyle is foreman over the stain, filler and shading stain operations. Clare Winslow is in charge of the sealer, both top coats, finish repairs and two rubbing lines. Elden Miller is in charge of polishing, upfitting, and packing. Although the table model plant is in a separate building, it comes under the same superintendent and quality control man as the large plant, but Omer Geralde is finishing foreman of this department.

Sales Manager of Glidden's Mississippi Region

Mr. George J. Seith has been made sales manager of The Glidden Co.'s Mississippi Region, with factory headquarters in St. Louis, Mo. In his new position, Mr. Seith will be responsible for the sale of Glidden paints in an area embracing Missouri, Arkansas, Oklahoma, Kansas, Colorado, and Wyoming, together with parts of Illinois, Kentucky, Indiana, Tennessee and Mississippi.

Glidden metropolitan branches in this region are located at Oklahoma City, Memphis, Evansville and Mt. Vernon, Illinois.

A member of the Glidden sales organization since 1947, Mr. Seith is a graduate of Washington University in St. Louis. He is a veteran of World War II service with the U. S. Army and a former member of the Chicago Bears professional football team.

Metalwash Machinery Corp. Modernizes Central Office

Metalwash Machinery Corp. recently has expanded and modernized the Main Office Building of its Elizabeth, New Jersey, plant.

"This addition to our offices completes the first stage of a broad expansion program begun last year," announces Mr. J. L. Pettit, Vice President and General Manager of the 27-year-old firm which manufactures washing, pickling and drying machinery for the industry.

WHETHER YOUR PRODUCTION RATE IS 25 or 2500 PIECES PER DAY

A DeBURGH COMPLETE FINISHING SYSTEM WILL

- BOOST PRODUCTION
- SAVE FLOOR SPACE
- IMPROVE QUALITY
- PAY FOR ITSELF QUICKLY

Now, thanks to the DeBURGH patented "multi-cycle" system, small furniture manufacturers can gain these same advantages with a DeBURGH Complete Finishing System engineered and installed by KOCH.

Heralded as the greatest development in years for the furniture industry, the DeBURGH system actually pays for itself — often in less than a year — through the increased efficiency of your finishing department.

Why not call in a KOCH engineer now and take action toward the installation of your own complete DeBURGH Finishing System?

Phone, Wire or Write Today!

GEORGE **KOCH** SONS, INC.

EVANSVILLE, INDIANA

LEADING ELEVATOR MANUFACTURERS have found that DULUX plus careful application methods pay off in trouble-free performance for years and years. And the wide range of DULUX colors gives architects and interior decorators plenty of artistic freedom.

BUILT-IN BEAUTY FOR BUSY BUILDINGS

DULUX for elevators—typical of the 12,000 Du Pont finish formulas working for industry today

● When an elevator is installed in a building, it stays put! That's why the baked enamel that goes on elevator wall panels, ceilings and doors must keep its lustrous gloss despite constant scuffing and handling through many years of uninterrupted service.

To meet the unusual requirements of elevator manufacturers, Du Pont chemists have developed a special DULUX finish of exceptional durability. It is one of over 12,000 Du Pont finishes now serving industry.

Want to make your product look better, sell better, last longer? Want to cut your manufacturing or maintenance costs? Whatever your finishing problem, contact the Du Pont sales technician in your area . . . or write E. I. du Pont de Nemours & Co. (Inc.), Finishes Division, Wilmington 98, Delaware.

STREAMLINERS MAKE SUPERSALESMEN for the railroads they serve when finished with eye-catching DUCO and DULUX Railroad Finishes. Today, 85% of America's leading railways use Du Pont paints on passenger-train equipment—real proof that DUCO and DULUX give top performance.

WHITE COAT KEEPS IT COOL! Finished with brilliant DULUX Tank White, the surface of a petroleum storage tank reflects heat rays with a high degree of efficiency. This keeps the interior cooler during hot weather . . . and thus prevents big evaporation losses.

NO PRINTING IN A PRESS! The snug-fitting containers that protect manufactured articles during shipment can leave ugly marks "printed" on improperly formulated finishes. With this testing device, Du Pont chemists measure the resistance of a finish to this printing action.

Du Pont Industrial Finishes

Chemically engineered to do the job *better*

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING...*THROUGH CHEMISTRY*

DUCO AND DULUX ARE REG. U. S. PAT. OFF.

Purchasing Agents Versus Salesmen

(Continued from page 41)

his call and leave before that limit is up. In so doing you will always have that remaining time as a "door-opener" on your next visit. Never overstay your welcome under any circumstances.

And, salesmen, why not get out of the class of "order-takers" and create a desire and demand for your products?

Repeat business is your future. Repeat business is received through confidence. Confidence is gained by selling the products best suited for the requirements.

"Tis better to miss a sale than to mis-sell."—*H. J. Willis.*

Glyco's 25th Anniversary

The Glyco Products Co., Inc. of Brooklyn, N.Y. and Williamsport, Penna., is now celebrating its 25th anniversary. Products include paints, waterproofings, rustproofings, flameproofings, waxes, detergents, inks and adhesives.

The new plant at Williamsport, Penna., covers about 30 acres with 150,000-sq.ft. of building space and has four railroad sidings.

Screen Process Printing Assn. Begins Research on Drying

The screen process printing industry has engaged in a systematic approach to its production problems through the activity of the Research Committee of the Screen Process Printing Assn., International.

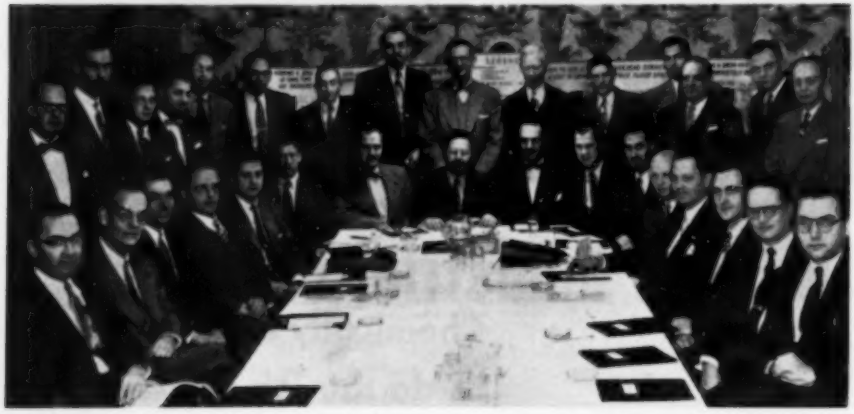
Meeting in Cleveland recently, the committee identified drying as the main bottleneck of silk screen production. The following were given as the basic "reasons why:"

1) The great versatility of the screen process; its variety of applications, stocks and printing media make it very difficult to standardize.

The thick ink layer. Silk screen deposits ink film from 40 to 100 microns; in other printing processes, the thickness of ink films is 3 to 5 microns.

The meeting program featured detailed descriptions of three drying installations that have proved satisfactory in practical shop operations. The papers were prepared by Mr. Milton Grant (President of the Silk Screen Process Co., Cleveland, Ohio), Mr. John Key (President of Admiral Screenprint Corp., Chicago, Ill.), and Mr. Jack Simmons (President of the Chromart Co., Philadelphia, Penna.).

The Committee Chairman, Mr. Victor Strauss of Pied Piper Press, New York City, opened the meeting with a summary of the drying problem. When he introduced the three speakers at the meeting, he made the following statement: "Finally I want to put on record that we owe a great deal of gratitude to our three speakers: Milton Grant, John Key and Jack Simmons. Three of the very best heads of our industry have set an example of generosity and cooperation without precedent in our field. They have unselfishly offered the results of years of thinking and planning and of considerable financial expenditure to you and the industry."



These men attended a meeting of the Screen Process Printing Association at Cleveland, Ohio.

THE BEUGLER STRIPER

A Quality Product For Better Stripes

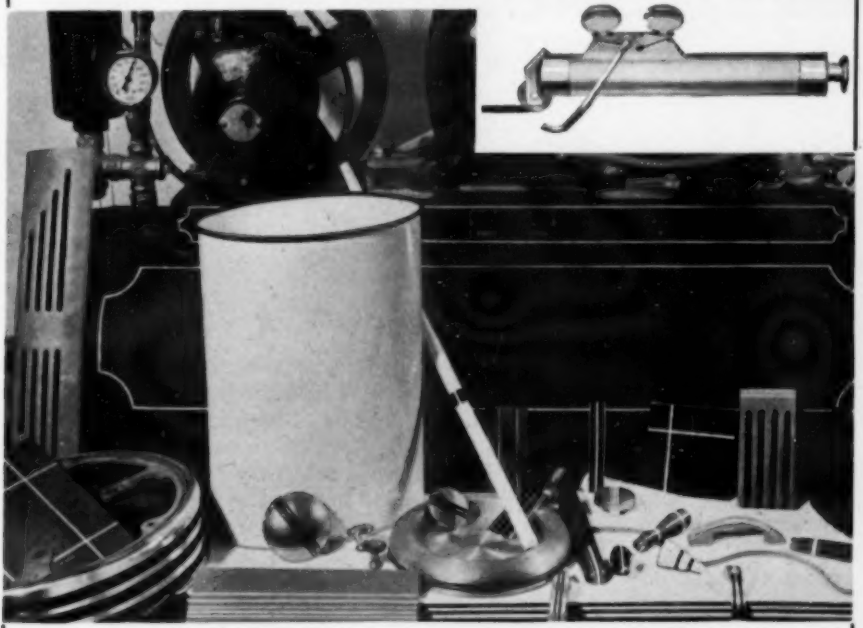
THREE MODELS

CRAFTSMAN	DE LUXE	JUMBO
WITH TWO STRIPES AND FIVE GUIDES	WITH THREE STRIPES AND FIVE GUIDES	WITH TWO STRIPES AND FIVE GUIDES
$5.75	$8.95	$12.95

7 standard stripe sizes from which to choose, for Craftsman or DeLuxe models, smallest 1/64″ and largest 5/32″.

5 standard stripe sizes from which to choose for the Jumbo model, smallest 1/8″, largest 9/32″.

SPECIAL STRIPER WHEELS TO ORDER FOR SPECIAL PROBLEMS



20 YEARS EXPERIENCE AND 2000 DEALERS TO SERVE YOU

If your dealer cannot supply you, write to us direct.

OVER 100,000 Beugler stripers in daily use in manufacturing plants, refinishing shops, in such industries as walltile, rubber, bicycle, automobile, furniture, toy, sporting goods, picture frames, household products, scoreboards, leather, print shops for manifolding, store fixture, boat, sign, lampshades and many others.

Used in identifying alloys, parts and fabrics, as well as decorating products to add sales appeal.

BEUGLER MFG. CO. 4316 WEST SECOND STREET LOS ANGELES 4, CALIFORNIA

Painted and lithographed sheet of steel ready for forming and welding to make cylindrical sides of a new shipping drum.

CLEANING, PAINTING AND LITHOGRAPHING

Steel Drums

MANY PRODUCTS made of thin sheet metal are painted and decorated before they are cut and formed, but it isn't often that heavy gauge steel sheets are painted before being formed. However, this is actually what happens in the huge Rheem Mfg. Co. plant at South Gate, California. One production line in this plant turns out an average of 600 steel drums of 50 to 60 gallon capacity per hour. These drums leave the production line completely painted and lithographed with the purchaser's message, ready for shipment.

This technique of cleaning, painting and lithographing before the products are formed is an integral part of the new "Rheemcote" process, considered by experts in the field as the first major advancement in steel drum manufacture in 25 years. Purpose of the "Rheemcote" process is to provide an attractive and durable coating on the drum surfaces, both interior and exterior. It must be a coating that is compatible with and fully resistant to the corrosive potentialities of whatever the drums may contain during their service life.

By RALPH H. GIESER, JR., Specialist
Metal Finishing Operations, Rheem Manufacturing Company

Basically, the "Rheemcote" process is one of technique, not materials. Finishes are varied according to the intended contents of drums. But the methods of application are constantly and rigidly controlled. The danger of interior finish breaks, porosity or excessive thinness that will allow the contents of the drum to come into contact with the bare metal of the drum—all of these possibilities have been practically eliminated. This assures safe delivery of the contents, uncontaminated, whether it is a chemical or a foodstuff.

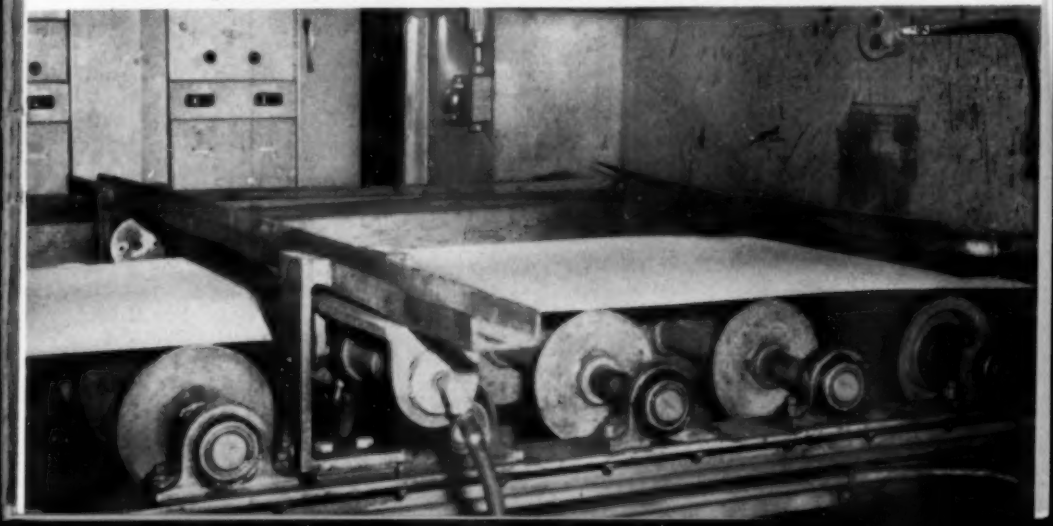
Karl F. Pfaender, Chief Plant Engineer, shows completed drum with attractively lithographed identification and message.

Mild Steel Sheets Are Cleaned; Phosphatized

In the "Rheemcote" process, the flat mild steel sheets, from which the drums will be formed, are first thoroughly cleaned and given a uniform phosphate surface treatment to prevent rust from forming and to assure lasting adhesion of the protective coating. This work is accomplished in a fully automatic metal cleaning and surface treating set-up worked out by and partially designed by Rheem engineers.

The metal cleaning equipment consists of several machines arranged in a line so that one feeds automatically into the next. The first machine is an automatic stack-

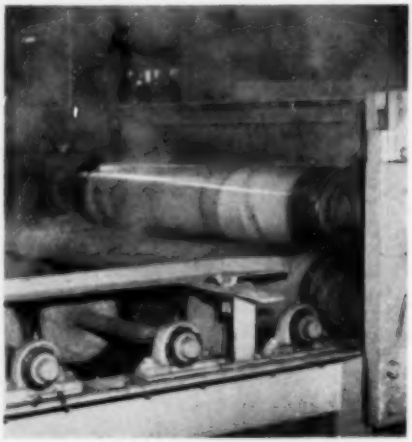
Here grit blasted sheets of bright steel emerge from the Wheelabrator chamber.



er which loads the sheets, one at a time, onto a conveyor belt. The steel sheets then travel through a Wheelabrator where their surfaces are grit blasted clean.

The third machine is an Aetna roller straightener where any warpage caused by the grit blasting is removed. The cleaned and straightened steel sheets are then carried by roller conveyor into a Rheem-designed hot-water washing machine where jets of water, at 180° F. and under 55-psi. nozzle pressure, wash away all loose dirt and metal particles.

After being washed, the sheets are squeegeed dry by a set of rollers; then they continue their travel through another set of rollers



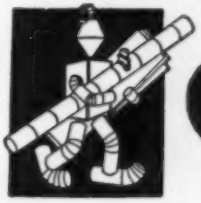
Washed sheets of metal are squeegeed as they leave the automatic washing machine. The 180° temperature of the sheet quickly evaporates all moisture that isn't removed by the squeegee rolls.

After leaving the Wheelabrator (far in background at left) sheets of steel pass through a machine that removes any warpage caused by the blasting process. Sheets then continue into the automatic hot water washer shown at the left. Water jets, at 180° F. and 55-psi., nozzle pressure, remove all loose dirt and steel particles from the sheets.

The machine in right foreground is a magnetic separator, used to remove steel particles from the water bath so the water can be used again. By re-using the water, only enough heat is consumed to maintain it at the required temperature of 180° F.

ELECTRICAL OVENS

LARGE or SMALL

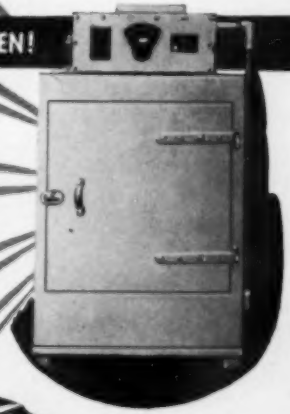


- *Rack*
  - *Horizontal*
  - *Vertical*
- *Drawer*
  - *Portable*
  - *Conveyor*

or

Tunnel Drying Types

YOU CAN STAKE YOUR REPUTATION ON THIS OVEN!



Keep a sharp eye on finishing methods for you can stake your reputation on this oven. Excessive heat has been the "cost" of many jobs. Each Young & Bertke oven is designed for its particular job with temperature controls, circulating air fans and other special equipment for perfect finishing results.

Transformer and Armature coils for radio, television and electric motors are some of the many smaller items to which these ovens are specially adapted. A complete line for results in any industry—for any product—with value beyond expectation. UP GOES PRODUCTION—down go costs.

- *For Bonding*
- *Drying or Baking*
- *Dehydrating*
- *Heat Treating*
- *Preheating*

The YOUNG & BERTKE Co.

OVENS • SPRAY BOOTHS • DUST and FUME CONTROL

2250 BUCK ST. • CINCINNATI (14), OHIO

where the phosphate coating is applied by contact rollers. This part of the set-up is also of Rheem design. The phosphatized sheets are again squeegeed and then moved on through a hot air drying oven. Beyond the drying oven, a second automatic stacker bundles the sheets for delivery to the painting department.

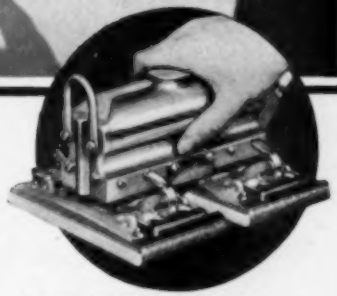
This huge metal cleaning and treating outfit requires only two operators—one at the loading end and one at the stacking end. Production rate is controlled by the 150-ft. per minute travel speed of the conveyor belt on which the sheets are initially loaded. The sheets are closely spaced on this belt by the automatic stacker. [*To page 74*]

Author of this article points to automatic phosphatizing rollers. A phosphate solution is roller coated onto the sheet of steel as it passes between the rollers. A second set of rollers squeegee away the excess phosphatizing solution.

This roller coater is the nucleus of the "Rheemcote" process. Painted sheets of steel pass from this roller coater directly into holding wickets on the baking oven chain far to right.

Faster, smoother finishing

of wood, metal or plastic surfaces



You can measure the savings in time, labor and materials when Sundstrand Air Sanders go on the job! Here is the pioneer line of air sanders with *straight-line action* . . . duplicating hand sanding . . . producing fine finishes free from swirls, scratches, and pressure marks. Your employees turn out more work, at high efficiency, with less fatigue. Get the whole story from your local supplier, or write for Bulletin IF-3.

FOUR MODELS FOR ALL SANDING REQUIREMENTS

. . . ranging from a versatile single-pad sander up to a heavy-duty double-pad model. Each available with all necessary accessories for any finishing operation.

SUNDSTRAND

SUNDSTRAND AIR SANDERS

SUNDSTRAND MACHINE TOOL CO.

PNEUMATIC DIVISION, ROCKFORD, ILLINOIS

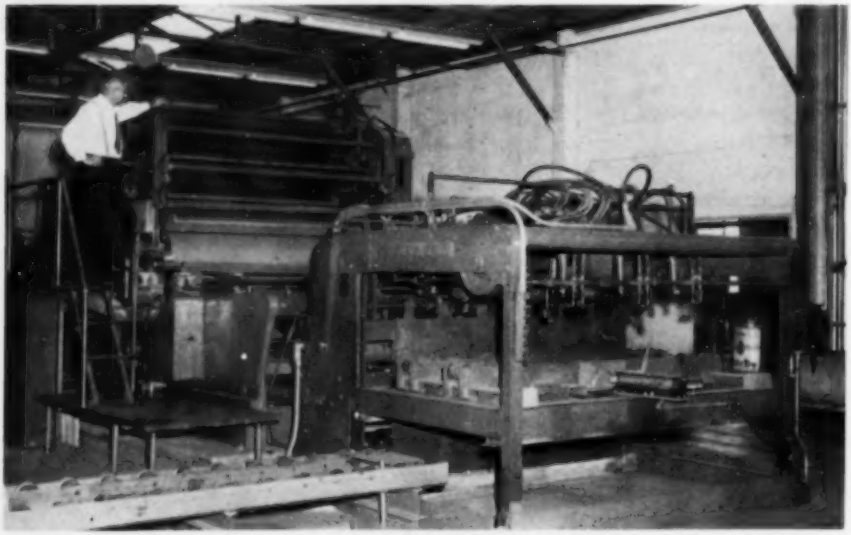
Solid Color is Applied by Roller Coater, and Baked

After the cleaning and surface treatment operations are completed, the sheets are transported in bundles to the painting department. Here a large roller coating machine forms the nucleus of the "Rheemcote" process. By roller coating the sheets while they are still flat, and especially on the side that will form the drum interior, a definite coating uniformity is obtained. There is less danger of coating imperfections which could ultimately result in contamination of the drum contents through contact with bare steel and possibly rust. The thickness of the coating applied by rollers can be controlled to within 0.001-inch tolerance.

Once the steel sheets are given a solid color coat, they move automatically into the wicket conveyor system of a 150-ft. baking oven. Baking temperature depends upon the type of paint or enamel being applied at the time. An automatic stacker at the end of the baking oven rebundles the sheets for delivery to the lithographing machine.

Lithographed Machine Adds Printing and Decorations

The lithographing machine is used to apply any desired printed or pictorial message on the side of the sheet that will form the drum exterior. By lithographing, perfect authenticity of design and detail is obtained. Furthermore, the process is extremely rapid. [*To page 76*]

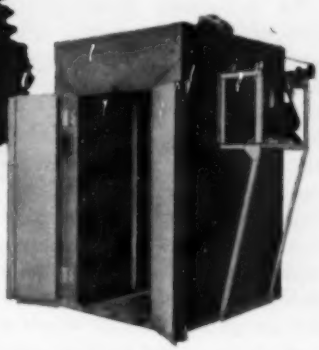


Automatic loader and lithographing machine which prints the message and/or identification picture on steel sheets which are to be formed into drums. This process is fast, and the resulting lithographed message exhibits excellent "lasting" qualities.

For Quality Baking at Low Operating Cost

you can count on

GEHNRICH OVENS



★ Standard recirculating type.
★ Electric, gas, oil or steam heated.
★ Bench, cabinet and truck loading models.
★ Efficient, uniform controlled baking or drying of finishes.
★ Broad range of sizes.

★ Prompt shipments.
★ Write for cataleg.

Also all types of batch and continuous conveyor ovens; dip tanks; roller coaters; trucks, etc. to your requirements.

W. S. ROCKWELL COMPANY
2782 Eliot St., Fairfield, Conn.

NON-INJURIOUS **ELECTRO** NON-INFLAMMABLE

COLD STRIPPER

FASTEST *in Action* **LOWEST** *in Price*

WRITE FOR TESTING SAMPLE OR ORDER
5-GALLONS AT DRUM PRICE

Specify whether dip or brush type is desired

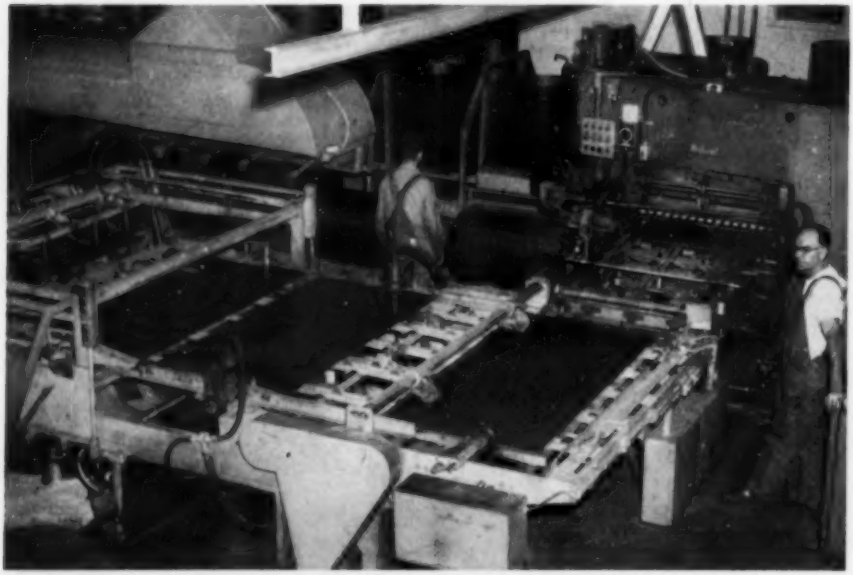
Allied Finishing Specialties Co.
2641 W. Grand Ave. • Chicago 12, Illinois

An automatic stacker loads the painted sheets on a conveyor which carries them to the lithograph rolls. When they have been printed, the steel sheets continue by conveyor through the same baking oven that was used for drying the over all coating applied by the roller coater. This transfer is accomplished by means of a folding section of conveyor used to bridge the gap between the roller coater and the lithographing machine.

With this section of conveyor in working position, the sheets from the lithograph conveyor feed directly onto the roller coater conveyor. When the lithographing machine is being used, the roller coater is idle and its rolls are lifted out of the way. Thus the lithographed sheets continue on through the roller coater and into the baking oven wickets without contacting the coating rollers.

Forming, Welding and Touch-up Spraying

When the lithographed coating is dry, the steel sheets are ready for



The painted and printed sheets of steel are placed, by an automatic stacker, on a series of conveyors which lead to a welding machine. As they move along on conveyors, their edges are cleaned automatically to provide a bare metal welding area. Small brushes under the hood (at the upper left in picture) apply water to cool the weld area, rephosphatize the metal, then squeegee it dry.

Beyond this station, the moving drum contacts a trip which sets in action an automatic spray gun, and the weld area is re-painted. The interior of the weld bead area is touched up by hand, but plans are afoot to install an automatic interior spray gun on a fixture extending outward from the welding machine table. The drum body will thus be formed and welded "around" the interior spray gun's position, but its travel will not be hampered.

For Your Heating Information...

THESE WILL HELP YOU:

PAN-L-HEAT BROCHURE Revised edition; 16 pages of latest facts and engineering data on industrial process heating. Subjects include: how to choose the right fuel . . . a formula for checking heating needs and costs . . . how to choose the best temperature cycle—many more.

JENSEN HEAT LINES Special features, photographs, and tips on industrial process heating to help you solve heating problems, step-up efficiency and cut costs. Published every other month.

Write today for these helpful guides to heating efficiency.

PAN-L-HEAT Ovens

Jensen SPECIALTIES, INC.

ADVANCE HEATING DIV.
9331 FREELAND AVE.
DETROIT 28, MICH.

BARRETT GALVANIZING AND HOT TINNING CENTRIFUGALS

Assure a Quick, Smooth, Uniform Coating

With the Barrett Whizo Galvanizer, excess metal is quickly removed from small parts after dipping in molten metal, in fact, much faster and more uniform production is assured. Parts will also pass the most rigid inspection for quality.

The method of handling is simple and easy. Work to be coated is placed in a round basket and submerged in molten metal. When thoroughly heated, the basket is placed in the Barrett Centrifugal to be immediately accelerated to high speed, the excess metal being thrown off before it can cool.

A quick pick up and stop (from 2 to 3 seconds each) assures maximum production with an even thickness of coating.

Machines furnished with or without heated surrounding drum, in capacities from 40 to 240 loads per hour, handling from 5 to 100 lb. loads. When used for tinning threaded work, rethreading has been found to be unnecessary.

Barrett Centrifugals are used extensively, combine speed with convenience of operation and the utmost in safety. They are highly developed to meet all reasonable requirements, have self-contained motor drive and occupy a minimum of floor space.

BARRETT CENTRIFUGAL GALVANIZER is driven with high torque head and has an equalized disc brake for quick stop.

Send at once for full details of Barrett Centrifugal Galvanizer

THE LEON J. BARRETT COMPANY

Designers and Builders of Centrifugal Machinery

1703 GRAFTON ROAD WORCESTER 1, MASS

WHAT'S THE BEST WAY TO STRIP PAINT FROM METAL PARTS TOO LARGE TO BE SOAKED IN TANKS?

See Page 3

Oakite's FREE Booklet on Paint Stripping

answers many questions that will lead you to better stripping procedures. You'll want to read more about:

What's the best way to strip large areas of structural metal when steam is available? ***See page 5.***

What's best when steam is not available? *See page 7.*

What is the cheapest way to strip metal parts in large volume? ***See page 9.***

What are the best ways to prepare stripped surfaces for repainting? *See page 11.*

What strippers are best for removing oil-base paints?... Synthetic enamels, alkali-resistant plastics or resin-based paints?... Japans, wrinkle finishes, nitrocellulose lacquers, alkyds, phenolics and ureas? ***See page 12.***

FREE For a copy of "*How to STRIP PAINT*" write Oakite Products, Inc., 32F Thames St., New York 6, N. Y.

OAKITE

SPECIALIZED INDUSTRIAL CLEANING MATERIALS • METHODS • SERVICE

Technical Service Representatives Located in Principal Cities of United States and Canada

the production line where they are formed and welded to make complete drums. The first production machine rolls and welds the drum body. Vacu-Blast machines (visible in one of the accompanying illustrations) are used to edge-clean the sheet automatically before it enters the welder. After welding, the drum bodies pass onto a conveyor line. While moving along this line, the weld bead on the drum body passes under a series of small rollers where water is applied to cool the weld area and where the bare metal is re-phosphated. As the drum cylinder passes beyond these rollers, it contacts a tripping arrangement which activates an automatic nozzle that sprays paint over the weld bead area.

Right now, the interior portion of weld bead area must be touched up by hand spray, but plans are afoot to install a spray nozzle on a fixture which will extend outward from the welding machine table so that the interior of the weld bead can be automatically finished. This is the only logical position for a spray gun after the drum bodies have been rolled into solid cylindrical form.

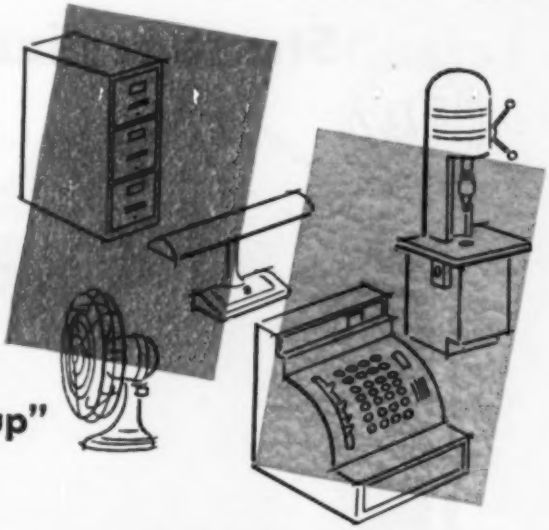
Tank Linings of Koroseal

Complete new plant facilities for rubber or Koroseal lining all types of plating tanks have been installed in the New Haven, Connecticut, plant of Frederic B. Stevens, Inc.

Koroseal "welded" tank linings have proved themselves to be the ideal tank lining for metal finishing operations, according to Henry Stevens, the company's New England branch manager when he announced the new installation.

With the "welding" process, Koroseal linings bond permanently at approximately 100-lbs. per square inch, and linings may be applied to wood, steel, concrete or any other material commonly used for plating tanks.

3 WAYS to glamorize "hard-to-dress-up" products



Here's how to get attractive, textured and third dimensional effects . . . conceal surface blemishes, weld marks, minor imperfections. A choice of three ways provides a variety of interesting patterns, infinite shadings of tone—

1. **DIMENSO® ONE-COAT "HAMMERED" METALLIC**—Produces a striking 3-dimensional hammered pattern in a single coat.
2. **DIMENSO® ONE-COAT OPALESCENT**—By modifying the method of application, a variety of rich opalescent effects can be obtained.
3. **KEM® ART METAL**—Durable and distinctive nonmetallic wrinkle finishes. Makes possible highly decorative effects.

Get the facts from your nearby Sherwin-Williams Branch. Consult your classified telephone directory for location. Or write The Sherwin-Williams Co., General Industrial Division, Cleveland 1, Ohio.

Services of trained industrial finish specialists available in your area through nearest Branch

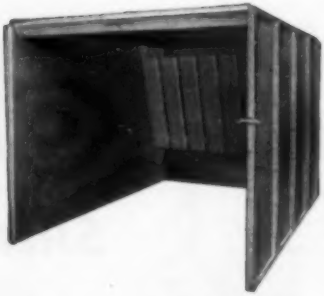
Your "on-the-spot" source for
PRODUCT FINISHES

SHERWIN-WILLIAMS
INDUSTRIAL FINISHES

Standardization Saves

Water-Wash Spray Booths

Leg-Type (also Bench-Type) Spray Booths



Dry-Type Spray Booths

You Time and Labor Costs!

You know how standardization saves in your business. Read how you benefit with *standard panel sizes.*

DeVilbiss Standardized Spray Booths – water wash, dry type, bench or leg type – are based on standard panel sizes.

To you, this brings several immediate time and money savings:

Easier erection – panels are accurately sized and punched so that corners and seams fit snugly and bolt together without binding or misalignment. Panels line up exactly and form a smooth, even, interior surface.

Lower installation costs – you save on labor because your own crews can easily assemble these booths. Rolled edges with mitered and welded corners reinforce the panels to provide a rigid, sturdy structure that is free standing.

Easy to convert to meet future needs – panel type construction makes it convenient to move, enlarge, rearrange or revamp.

A DeVilbiss representative will gladly give you helpful information on standard or special Spray Booths as well as DeVilbiss Spray Guns, Air Compressors, Hose and Connections. See him today!

THE DEVILBISS COMPANY
Toledo, Ohio

Windsor, Ontario • London, England
Santa Clara, Calif.

DeVilbiss Spray Booths are manufactured to the standards of the National Board of Fire Underwriters for spray booths as recommended by the National Fire Protection Association.

FOR BETTER SERVICE, BUY
DEVILBISS

BRANCH OFFICES AND DISTRIBUTORS IN PRINCIPAL CITIES THROUGHOUT THE UNITED STATES, CANADA AND THE WORLD

Paint Strainers; Disposable Paint Cup Liners

We have found the article "Improve Your Spraying" by H. H. Connelly very interesting and would like further information on some of the items mentioned.

Can you tell us where to purchase the fluid strainer mentioned in the article? We are also interested in obtaining disposable liners for metal cups and wonder if such an item is made for 5-gallon paint cans.—*D.P.M.*

Those paint strainers are advertised in this magazine, see Feb. 1953 issue, pages 123 and 124.

The only firm we know of that supplies disposable liners is Bradford Products Co., St. Louis.—*Editor.*

Paint Stripper That Washes Off Easily

In Jan. issue, page 72, information is requested as to the availability of an efficient paint removing compound. We are presently manufacturing a water-soluble compound under the trademark "Helperize." This compound has proved to be a very satisfactory paint remover, capable of removing all types of paint.

"Helperize" compound has been tested and approved for use by the U.S. Army Ordnance Corps and bears a Military specification number. This compound is in general use in Ordnance, Navy, Engineer and General Depots. It is also used by many automotive refinishing shops, producing custom work at lower costs.

Our organization has conducted numerous demonstrations to acquaint interested people with the application and effectiveness of "Helperize." Persons interested in attending such a demonstration or having one conducted at their place of business, should forward their requests to us.—*Helper Paint Removing Service, Inc.*

(Address on request.)—*Editor.*

Flock Materials, Equipment

On page 74 of January 1953 issue, there appears a request, by "D.H. Inc.," for the suppliers of flocking materials, equipment and literature concerning various uses and finish, which you have furnished to them. Would you kindly forward similar information to us?—*S. & C.*

Information supplied.—*Editor.*

Hot Lacquer Spraying

B. Mfg. Co.: Through *Industrial Finishing* (Feb. issue, page 86) we have learned of your interest in determining whether hot-spray lacquer has any advantage over conventional cold-spray lacquer and we hasten to send you some literature on the subject. This literature consists of two leaflets, "The Case for the Hot-Lacquer Process," and "The Economic Advantages of Modern Lacquer"; also, several case history advertisements. The latter describe the expe-

for color retention on light finishes-here is

CRYSTAL CLEAR LACQUER

WATER WHITE

It's a new, time-tested material for preserving the original color of those beautiful grays, off whites, lime, pearl, sea mist, ermine and all pale, bleached and decorative effects so popular on furniture of today.

Crystal White Lacquer has excellent color retention, and it can be depended upon to protect the surface from the danger of discoloration due to exposure in the store or home.

A free working sample, together with finished wood panels showing the new colors, will be sent upon request. No obligation!

THE SCHAEFER VARNISH COMPANY

INCORPORATED

15TH AND MAGNOLIA LOUISVILLE, KY.

riences of different manufacturing companies which have adopted hot-spray lacquer because it has provided them with a more economical finishing system.

If we can provide you with any additional information which will help determine if hot-spray lacquer can be used to advantage by your company, please let me know.—*R. F. Wint, The Cellulose Products Dept. of Hercules Powder Co.*

Tumbling Barrels

A company in Grand Rapids has suggested that we write you in an effort to locate a manufacturer of tumbling barrels. If you know of a manufacturer of suche equipment, we would appreciate your putting us in touch with the concern.—*H. Co.*

In a letter we are naming several firms that make this product.—*Editor.*

"Is this bird a part of the agitating equipment? He sure agitates me."

Paint Selling

Will you kindly advise us if reprints are available on the article entitled, "A Methods Engineer Analyzes Paint Selling", as published on pages 22 to 26 of December issue of this magazine? If these reprints are available, we would appreciate receiving 12 copies.—*P. C. & Co.*

Reprints are not available but we happen to have a few complete copies of the magazine—and we are sending these to you.—*Editor.*

Long Stroke Rubbing Machine

Please give us the name and address, if possible, of the manufacturer of the long stroke machine that will take sanding, rubbing or polishing pads.

We are also interested in the durable finish for tables, which you mention on page 90 of November issue.—*B.R.,Inc.*

The long-stroke machine for sanding, rubbing or polishing is a product of Curtis Machine Division, Lincoln Park Industries, Inc., 1939 Gibson St., Jamestown, N. Y.

So many concerns can supply the table finish you want that we are naming several of them in a letter. —*Editor.*

"Cotswold" Dipping Machines

Having had the opportunity to study the article on Dipping in November issue, the thought has occurred to us that you might be interested in receiving a copy of our illustrated catalog which gives particulars of our range of power dipping machines. We make them for production. [*To p. 86*]

HOT and COLD SPRAY FINISHING LACQUERS and SEALERS

Our business is not only to provide you with tried-and-true quality, but also to **save you money on every order.** This we can do because of the savings we make due to our close contact with our raw material suppliers, the huge chemical plants of the Gulf Coast.

CPL

COAST Paint & Lacquer Co. Inc.

P. O. BOX 1113, HOUSTON 1, TEXAS

If you think it would interest your readers to review our products and if you wish to receive photographs for publication, we would be pleased to cooperate.—*Lionel Hook & Sons, Ebley, Stroud, Glos., England.*

To Strip Off Baked Enamel

We are interested in learning the name and address of "L. Chemical Co.," whose letter about its "Kwik-strip Regular" stripper appears in Letters from Readers, Dec. 1952 issue, page 82.—*W. Co.*

So happens that this concern is in your city (Chicago). In a letter we are giving you their full name and complete address.—*Editor.*

Electric Conductive Paints

In January issue, page 76, we notice that "W.E. Co.," is inquiring about possible sources of Electrically Conductive Paint. We do not know the purpose for which the paint will be used but we manufacture Electrically Conductive Paint and understand we are one of two sources in the United States approved on Navy specification 52-E-10. Also, we are furnishing conductive coatings to all the television picture tube manufacturers in Chicago and some eastern concerns.

If from the above you feel we might be of some service to W.E. Co., would you kindly pass this information along?—*Stuart Paint Co., Inc.*

"We'll be showing a good profit soon—here's a book that tells how to make us solvent."

We have manufactured conductive coatings and insulating coatings for several years and are interested in knowing the name and address of this firm.

We have recently developed a conductive coating for one of the major companies in the country that has a resistance reading of less than 4-ohms over an 8-in. span.—*The Farboil Co.*

We are glad to learn about your products, and in a letter, we are sending you the full name and address of W.E. Co. (Remember TV's Betty Furness?)—*Editor.*

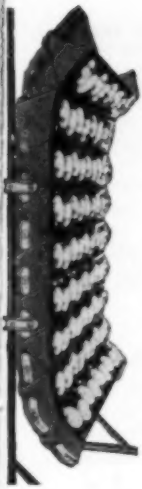
Air Bubble Trouble

Will you please send us four or five tear sheets of the article entitled, "Air Bubble Trouble in Dip Tanks," which appears on page 88 of March 1952 issue of *Industrial Finishing* magazine, or November 1952 issue, page 68?—*Lewyt Corp.*

Reprints sent.—*Editor.*

Rubber Traffic Cones

One of our customers is interested in getting some information about finishing rubber traffic cones. These are the items which are used by cities,



Patent-Flex

INFRA-RED OVENS

The patented adjustable contour construction, which these ovens embody, permits the Patent-Flex oven to be shaped exactly to suit your requirements.

The PATENT-FLEX "oven-shape-adjustment" guarantees that you can obtain maximum operating efficiency from every lamp in your oven.

If you later change your product you simply re-shape the oven sections to maintain top efficiency.

ASBESTOS INSULATION EFFICIENCY

Patent-Flex uses Asbestos Insulation to give more heat with fewer lamps. Every lamp row has two complete panels of asbestos insulated, metal backed construction to keep more Infra-Red heat within the oven.

Patent-Flex design permits tight multiple section joints, with each section individually adjustable from the outside.

Patent-Flex advantages obtainable in a complete range of sizes and shapes.

OUR RECENTLY COMPLETED PLANT EXPANSION now provides manufacturing facilities sufficient to handle more than double this entire country's total 1953 anticipated Infra-Red requirements. Consequently, we give immediate delivery, and will continue to give immediate delivery.

YES! DELIVERIES RIGHT NOW

from continuous replenished stocks. Even factory shipments on 100 ft. long ovens are made in 3 or 4 days.

TO GIVE YOU AN IDEA OF PRICES

the net price on the 6 Row Portable Caster Base, 48″ long oven section, as illustrated, is $178.00. The 4 Row Straddle Section 48″ long is $126.00 net. The Single Row Unit has a net price of $21.50 each.

Ovens use R-40 lamps with hermetically sealed reflector, which never has to be cleaned. Obtainable from your wholesaler on your lamp contract.

Patent-Flex Ovens are sold and distributed nationally by:

GENERAL ELECTRIC SUPPLY CORP.
WESTINGHOUSE ELECTRIC SUPPLY CO.
GRAYBAR ELECTRIC COMPANY, INC.

For engineering advice write to

WIL-SON MANUFACTURING CO. CLOVERPORT, KENTUCKY

counties, turnpikes, etc., for danger signals when the traffic lines are being re-painted. We understand they are made of rubber and then are coated with a strip of yellow on top of a strip of red.—*C.&F.*

Who has a paint suitable for this purpose? We named a few concerns in a letter of reply to the above inquiry, but would like to hear from concerns who can supply durable paint for rubber products.—*Editor.*

Where's Gyromat Corp.?

In January issue we read an article written by Mr. R. F. Wiggins, President of the Gyromat Corp. We are wondering if you have the address of these people? We would like to write them for literature on their product. —*G.K. Co.*

It's P. O. Box 600, Fairfield, Connecticut.—*Editor.*

"But I do think it's a good dip job—no paint trapped in pockets, no fat edges, uniform coating, good coverage. I just don't like it because that's my lunch."

How to Cut Cost of . . .

We would like to obtain two reprints of the article, "How to Cut the Cost of Finishing Your Product," which appeared in January issue, pages 28-37, including the 13 typewritten pages of detailed instructions on operation and control . . .—*Metalsurf Corp.*

No reprints of this article have been made, but we are sending you two copies of the magazine in which it appears. Your request for the 13 pages of typewritten instructions is being referred to the author, *Mr. C. Raymond Syer.—Editor.*

Our Stripper Does It

In the January issue of *Industrial Finishing*, in the "Letters from Readers" section, page 72, you requested information about a Paint Stripper that would remove automotive lacquer and, in turn, the Stripper could be removed with water.

We manufacture such an item and I am enclosing some copies of our literature so that you may pass them along to the interested concern.—*The Tropical Paint & Oil Co.*

Reflecting Paint

I have noticed some reflectorized signs, which are merely pressboard with a reflecting paint. I have seen in your magazine advertisements for reflecting coatings, but cannot locate them now. I wish to coat the wall immediately behind a carved cross, to give a sort of an aura effect.—*E.H.*

One of the several manufacturers of luminous paints can probably supply what you want. In a letter we are naming a few of them.—*Editor.*

CASE GOODS MANUFACTURERS

The smallest plant can do what this prominent California manufacturer* reports in this wire to inventor:

"Conveyor operating 2 weeks. Believe it best of all. Estimated increase production 50%. Producing 169 5-piece suites in 8 hours with 21 employees not including rubbing and cartoning operations."

DeBurgh Systems

PATENTED AND PATENTS PENDING

Permit up to 50% Labor Saving
Permit up to 35% Space Saving
Permit Installation in Smallest Plants
Permit Tremendous Production Increase
Save up to 2/3 Drier Area
Improve and Standardize Finish
Many Other Advantages

Write, Wire or Phone Today!

DeBURGH CONVEYORS
For Assembly, Finishing, Upholstery
1741 "K" St.
Washington 6, D. C.

***Name on Request**

HOT SPRAY LACQUERS

It is well-known, now, in most of industry concerned with finishing, that HOT SPRAY LACQUER has some outstanding advantages.

It covers better, dries faster, and is better adapted to conveyor-system spraying. All these features mean *lower finishing costs.*

ROCKFORD VARNISH is a first-class source for all types of Hot Spray Lacquers. Our laboratory sets rigid standards for formulation, using only the best of materials, and accurately prescribing the mixture to perform as you wish under the conditions in your plant.

Thus, from Rockford Varnish, you can be assured of top quality to suit your requirements. Give us the word on what you need . . .

Research, Quality, Service

ROCKFORD VARNISH *Company*
ROCKFORD, ILLINOIS
Manufacturers of Protective and Decorative Coatings

Affiliate
GORDON BARTELS CO.
Roller Coating Specialists

Superb

Where many products are concerned, the use of a *satisfactory* coating is not enough. It may often be vital that a finishing material be Superb in every respect . . . that it possess qualities of outstanding beauty, long life, and unusual resilience as well. Choice of such a finish is a problem to be solved by experts, who can put their facilities, experience, and know-how to work in developing a custom-tailored coating with specialized characteristics. If *you* have a product-finishing problem that needs careful attention, may we suggest that you send us a sample for recommendations by our laboratory. No obligation of course. . . .

Research, Quality, Service

Affiliate
GORDON BARTELS CO.
Roller Coating Specialists

ROCKFORD VARNISH *Company*
ROCKFORD, ILLINOIS
Manufacturers of Protective and Decorative Coatings

Book on Solvents Wanted

We manufacture kitchen cabinets and directors' tables. In our finishing processes we use lacquers, sealers, thinners, varnishes, stains, etc.

In January issue, we notice some books advertised on the subject of Industrial Solvents.

For the purpose of enlightenment of our finishing department, we would like to have a book which would give them general information, as opposed to technical information, as to the characteristics of the various solvents.

Perhaps you can make a recommendation to us of a book which would give a layman information suitable for use in a finishing department such as we have.—*M.B. Co.*

First, we recommend that you send for the free book on this subject, as offered by The Solvents & Chemicals Group, whose advertisement appears in every issue of this magazine. The Chicago member of the group (the one nearest you) is Central Solvents & Chemicals Co., 2545 W. Congress St., Chicago 12, Ill.

We also have a book, "Industrial Solvents" (758 pages) that is priced at $12.00. It is illustrated and briefly described in our book catalog which we are sending you. Many concerns and individuals have bought copies of this book (even though the price may seem high) and, according to our Book Department, no copies have been returned.

We sell all of our books on a money-back guarantee; in other words, you pay for the book, get it, look it over and if you feel it is unsatisfactory for your purpose (or too high priced) you return it and your money is refunded. —*Editor.*

Bleached Mahogany

In the February issue, page 78, I read about the trouble B.R.Co. is having with bleached mahogany. I do a lot of bleaching and believe that I can be of some assistance, in a small way.

I know how costly these blisters can be and you can be sure that I have had my share in the past. I use ——* A & B bleach and find it gives a tone lighter than others; in fact, lighter than most bleaches. I would recommend it for B.R. Co.

I have found that once a piece has been bleached twice, the chances of blistering are greater; and more precaution has to be taken in preparing the piece for the final finish. I would like, if I may, to give B.R. Co. my way of dealing with a piece that has been bleached twice.

Th following day I sandpaper the bleached piece; brush the surface free of any dust, and give it a wet coat of white vinegar which is a very good neutralizer. This I let dry for two days in a drying room. On the fourth day I sandpaper the surfaces again, brushing off the dust once more; apply a light coat of alcohol; let dry for half an hour; then continue the next operation. By following this method I find I have little trouble with blisters; but the time is costly, therefore I would advise B.R. Co. to stick to a one coat bleaching operation if time is essential.

On one special occasion I had the

Conveyor Line
Finishing Supervision

A GOOD C.L.F.* OPERATION should start with wood veneers and solid lumbers that are properly kiln-dried and sanded. This is important.

In our preceding advertisement we discussed wash coats.

Our next operation on the line is the application of filler which is most important and requires constant care and supervision. Mac's C.L.F. fillers are specially formulated for each particular job. They provide maximum filling and clearness and do not swell nor break their adhesion in the pores when the sealer and lacquer coats are applied.

The filler should be well padded into the pores by across-the-grain padding. Then thorough wiping grainwise is essential to remove the excess filler from the pore to prevent a cloudy effect from unwiped filler. If this procedure is not followed you may get sunken pores, pinholes and consequent rejects.

If you are planning a new C.L.F. set-up, or if you are planning to convert your finishing production to C.L.F., our technical men have the "know how" to set up your schedule of operations and to recommend the materials to be used. They are at your service, without obligation. A phone call, wire or letter will give you the details of the recommended procedure to work out and solve your particular problems.

*Conveyor line finishing.

OUR 78TH YEAR OF SERVICE

The Lawrence-McFadden Co.

Headquarters for Fine Finishes Since 1875

Manufacturers of

FILLERS—STAINS—VARNISHES—LACQUERS—SEALERS—PRIMERS AND SPECIAL FINISHES FOR CONVEYOR LINE PRODUCTION

7430 STATE ROAD **PHILADELPHIA 36, PA.**

———— company make up a white toner, which I applied over the first coat of bleach to get a lighter tone. Not only does this save time and money; it also adds uniformity to the work. I think if B.R. Co. would try this suggestion they will find they can save both time and money. I dislike to hear of anyone in trouble. I've been finishing bleached mahogany for ten years and have had my share of troubles in the past, so I would like to help someone in distress if I can. —*George Romano.*

*Name on request.

Infrared on Wood Finish?

We have been advised that infrared lamps cannot be used to dry finishes on wood furniture; that the heat draws moisture out of wood grain, causing blisters to appear.

However, an electrical engineer tells me that several years ago he read where a finisher had a bank of heat lamps mounted in such a way that he could bring them close up or move them farther back from the coated surfaces being force dried.

We don't need speed nor large production. We are interested in just enough heat to help dry the finish and to offset humidity that causes greyness.—*D.R.*

Some of the largest manufacturers of infrared electric ovens have conducted experiments in this field, and to date, so far as I know, none has been successful. One large manufacturer of wood chairs installed an infrared electric oven against the advice of the oven manufacturer, and this expensive experiment met with failure.

I suggest that you partition off a drying room and arrange to blow heated air into this enclosure to maintain a temperature of from 100° to 125° F. The enclosure should have some ventilation or a mild exhaust which will cause some air circulation to aid in drying the finish. Should you go to higher temperatures, say 130° to 140° F., then you should install a humidifier so that a relative humidity of 20% to 30% will be maintained.—*P. C. Bardin.*

Protective Coatings for Low Alloy Steels

A new Wright Air Development Center research contract for developing better high-temperature corrosion and oxidation resistance in low alloy steels has been awarded to Sam Tour & Co., Inc., a New York city technical consulting firm. The project will explore processes for depositing protective surface coatings on steel. The results should ultimately enable industry to reduce the amount of nickel and other critical metals now required in engines and other aircraft components.

Two New Directors Elected; American-Marietta Co.

V. Muir Rogers and Leigh R. Gignilliat, Jr., became newly elected members of American-Marietta Co.'s Board of Directors at the Annual Meeting of Shareowners in February. Other Directors re-elected to the Board were Chairman Grover M. Hermann, H. J. Hemingway, R. L. Oughton, C. S. Beaver, David W. Kahane, Joseph H. Briggs and S. W. Fleshelm.

Muir Rogers

V. Muir Rogers, American - Marietta's Vice President in Charge of Industrial Sales has been with American-Marietta since 1939 and is well known in industrial finishing circles throughout the country. Rogers is a graduate of the University of Kansas and is a Director of the Tell City Woodcrafters, Inc., Tell City, Indiana.

Leigh R. Gignilliat, Jr., is Vice President of the American National Bank & Trust Co. of Chicago and has been associated with American National since 1939. Gignilliat is a graduate of Culver Military Academy and Prinecton University and is a Director of National Homes Corporation, Lafayette, Ind., and the Chicago Association of Commerce.

new

National Air Sander

STRAIGHT-LINE ACTION...SINGLE PAD

FAST • LIGHTWEIGHT • VIBRATIONLESS

MODEL 600

$82.50

Here is National's new, powerful, high-production sander which weighs only 5 pounds but operates at 3200 rpm. Rapid stock removal is assured by the 5/16" stroke and 25 sq. in. of abrasive area. Either felt or rubber backing pads are available, and a built-in water spray makes wet sanding easy. National manufactures a complete line of block sanders, offering either orbital or straight line action . . . electric or air driven.

Write for further information today!

NATIONAL NS SANDERS

NATIONAL AIR SANDER, INC.

2820 AUBURN ST. ROCKFORD, ILLINOIS

Viscosity Measurement

Our Laboratories are contemplating running a series of tests involving the application of water spray on fires in flammable liquids. We anticipate that viscosity will be an important factor in these tests, and thus feel that in our test data, viscosity should be expressed in the measure most commonly used by the finishing industry.

We would like to know if any measure of viscosity other than Ford Cups is commonly used by paint manufacturers and industrial users. Also, what is the general range of viscosity for finishing materials used in dip tanks?

Any information that you can supply us will be greatly appreciated . . . —*Factory Mutual Engineering Divn.*

The two most common methods of measuring paint viscosity involve the use of the Ford No. 4 cup and the Zahn No. 2 cup. The latter is gaining in poularity due to its simplicity in operation. More than 1000 of these cups were sold in January, 1953.

The normal mixed paint viscosity for industrial application, using the Zahn No. 2 cup, would be between 25 and 45 seconds. The equivalent range, using the Ford No. 4 cup, would be from 16 seconds to 35 seconds, and the equivalent in centipoises would be from 38 to 108 centipoises.

The ranges of viscosity normally used in dipping, flow coating and spraying can vary as above. Some new developments in flow coating indicate that viscosity as high as 110 seconds, Ford No. 4 or 129 seconds Zahn No. 2, may be used in the near future.—*E. A. Zahn.*

Ford Cup No. 4	Zahn Cup No. 2
16	25
20	29
24	33
30	40
35	45
42	52
47	58
54	66
65	78
72	86
82	96
88	104
97	112
104	120
111	129
121	136
132	145
143	159

Standard Viscosity Conversion Chart

New District Mgr. Appointed by Pangborn Corporation

John C. Pangborn, Jr., son of first vice-president John C. Pangborn, has been appointed Hagerstown District Sales Manager by the Pangborn Corp., (blast cleaning, dust control), Hagerstown, Md.

The Hagerstown sales district was recently formed and consists of a number of counties in central Pennsylvania, most of West Virginia with bordering counties in Ohio and Kentucky and the western section of Maryland. Headquarters for this district will be at the Pangborn Hagerstown plant.

Recommended Zahn Cup Viscosity Ranges (C.P. is Centipoises).

Zahn Cup Number	No. 1	No. 2	No. 3	No. 4	No. 5
For Viscosities below	75-c.p.	250-c.p.	800-c.p.	1200-c.p.	2000-c.p.
or Zahn Cup in Seconds	95-sec.	85-sec.	75 sec.	85 sec.	85 sec.
Most Accurate Range in c.p.	12 to 65	30 to 200	90 to 600	150 to 900	350 to 1200
or Seconds	40 to 85	20 to 70	15 to 60	15 to 65	15 to 55

In determining viscosity under ordinary working conditions, Zahn cups will give reasonable accuracy within the range of 70° F. to 86° F., and possibly higher, but all determinations here charted were made at 77° F.

Twentyfive Million
Gallon Reasons
Why we lead the field
IN
LACQUERS-THINNERS
QUALITY
BARKER
UNIFORMITY
BARKER CHEMICAL COMPANY
700 EAST 138th. STREET
CHICAGO, ILLINOIS

Add to My Pullman Spray Painting Article

My article, "Traveling Spray Booths Used in Painting Pullman Cars," which appeared in January issue of this magazine and which referred to operations at two of our repair shops was presented nicely and the photographs were especially clear and interesting.

I have received two telephone calls from sales engineers, congratulating us on the write-up. One of them made inquiry as to the comparison chart (as referred to in the last paragraph, showing the economies which are possible through the use of the traveling booth as compared to that with other types of spray booths).

This chart was included with my article . . . and it is apparent that it was omitted due to lack of available space. However, inasmuch as I consider the chart one of the strong features of the article, it may be advisable to consider inserting it in some future issue . . .

It would be appreciated if you would supply me with six copies of the article for distribution to our management. — *J. W. Limbrock, Plant Maintenance Engineer.*

The chart, to which Mr. Limbrock referred, is reproduced herewith.—*Ed.*

Item	R. R. Semi-Down Draft	Traveling Booth	Advantages
Floor space required (area)	19x100-ft. 1900-sq. ft.	12x18-ft. 216-sq. ft.	Saving 1684-sq. ft. of floor and spray booth to houseclean.
Illumination required	36-300 watt 10,800 watts	8-120 watt 960 watts	Saving of 9840-watts and wiring expense.
Water wash units	12 8-ft. units or 96-ft. total (lineal feet)	2 3-ft. units or 6-ft. total (lineal feet)	90-ft. less air washer to compound and houseclean.
Nozzles required	288	24	Saving 264 nozzles with necessary cleaning.
Water pumps	Six 10-hp.	Two 1½-hp.	Four less pumps to wire and maintain
Exhaust fans	Six 5-hp.	Two 3-hp.	Four less fans to wire and maintain
Total exhaust capacity	96,000-c.f.m.	12,000-c.f.m.	Conservation of wasteful use of exhaust
Air velocity past operator	109-f.p.m.	150-f.p.m.	Better ventilation for operators
Roof penetration required	Six	One	Saving in labor and exhaust stack accessories
Misc. electrical hp. required	None	9-hp.	For duct, input fans, scaffold and drive. For traveling booth only
Total electrical hp. required less any replacement air	90-hp.	18-hp.	Conservation of wasteful use of power
Replacement air required (100% ideal)	96,000-c.f.m.	12,000-c.f.m.	Conservation of wasteful use of heated air.
Lbs. of steam condensation per hour when in operation	9600-lbs.	1200-lbs.	Saving of 8400-lbs. of steam per hour

Comparison between Pullman car length down-draft spray booths and traveling spray booths.

DOUBLY DEPENDABLE

Kneehole Desk Courtesy of MADDOX TABLE COMPANY
Jamestown, N. Y.

JIFFY MACERATED PAPER PADS AND BLANKETS protect both furniture side and top surfaces and their finishes.

The furniture floats in the soft cushioning of JIFFY PADS which absorb transportation shocks and vibrations. JIFFY PADS fit snugly, conform easily to any shape — prevent scratches and other surface damage.

Also available — JIFFY PADS AND BLANKETS lined with velvety soft "FACIAL TISSUE" for delicate surface finishes which require the ultimate protection.

JIFFY PADS AND BLANKETS meet the requirements of item 19501, note 2, paragraphs 1, 6, 16 as specified by the Uniform Freight Classification.

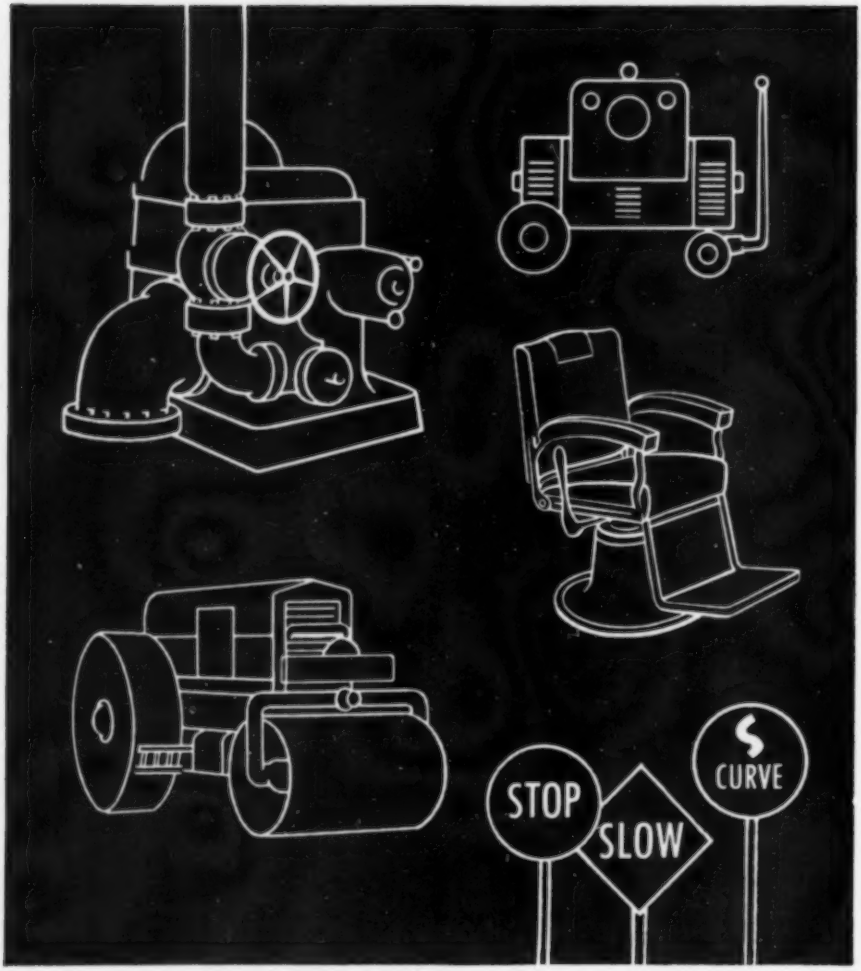
JIFFY MANUFACTURING COMPANY

General Offices: **HILLSIDE, NEW JERSEY**

Plants: **Hillside, N. J. — High Point, N. C. — Salem, Illinois**

Pacific Coast Representative: RAY T. EBERT CO., P.O. Box 550, Redwood City, California

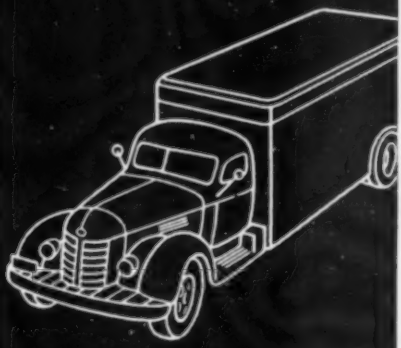
Lowe Brothers ZINOXIDE cuts spray booth



✻ ZINOXIDE is the ideal time-saving, money-saving primer for a wide variety of products—turbines, barber chairs, road rollers, welding equipment and road signs, to mention just a few. It adheres perfectly to all types of metal — even aluminum!

Primer handling time in half!

produces a better looking job— practically eliminates sanding



An Extra ZINOXIDE PLUS! Contains 2 of the best corrosion resisting pigments known to the paint industry! Products primed with ZINOXIDE can be stored *outside* without danger of rusting!

A midwestern truck body manufacturer* had heard about ZINOXIDE Primer—was intrigued—but wanted to see the *proof* in his own plant. A Lowe Brothers "Finishing Specialist" demonstrated its amazing qualities of adhesion and durability with impact and conical mandrel tests on a ZINOXIDE primed panel. Then, he put ZINOXIDE to the test on one of the large, hard-to-prime truck bodies—and here's what the manufacturer saw:

1. **ZINOXIDE flowed out smoothly** — NO OVERSPRAY, even where it was necessary to double back on corners.
2. **Dried in minutes**—smooth as velvet!
3. **Required no sanding** — except for minor touch-up where dirt was on the surface.
4. **Ready for finish coat immediately**—no time and effort spent pulling body out of booth to dry!
5. **Smooth, beautiful gloss,** without "orange peel," was secured in finish coat — proving ZINOXIDE'S excellent "hold out" qualities!

Now, Lowe Brothers ZINOXIDE is at work in this plant everyday—producing better looking results —saving time and money, too, by greatly reducing sanding and handling costs. You'll find that it will be worth your time to check into the possibilities of using ZINOXIDE. Write today for details —no obligation.

THE LOWE BROTHERS COMPANY • Dayton 2, Ohio
Industrial Division

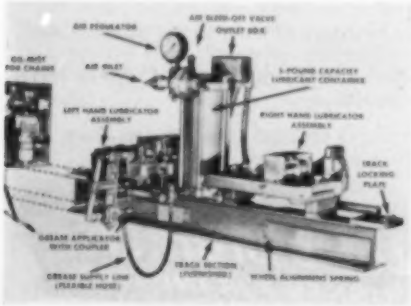
Lowe Brothers
FINISHES FOR INDUSTRY

This advertisement is based on facts from Lowe Brothers industrial case history files.

Lubricates Conveyor Wheels Automatically

Lubrication of conveyor trolley wheels, long either neglected or done by hand with resultant conveyor stoppage, waste of manpower and lubricant, and risk of injury to workmen performing the job, the dripping of oil on work in process, has been made automatic, certain and safe by a new lubricator announced by the Alemite division of Stewart-Warner Corp., 1826 Diversey Pkwy., Chicago 14, Ill.

The new Alemite lubricator delivers a pre-set, constant shot of either oil or lubricant to each trolley wheel on each side of the conveyor system into which it is installed, simply by the flick of a switch. When every wheel in the system has been serviced, the system may be switched off and is in constant readiness to go into operation again at whatever lubrication interval the load and other conditions may require.



Lubricates each wheel automatically.

As each wheel reaches the spot on the track at which the lubricator is installed, a coupler clamps the lubricant fitting on its hub and delivers the require amount of lubricant or oil. The coupler instantly disengages and is ready for the next wheel.

As the applicator and coupler engage the grease fitting on each wheel, a pressure of from 800 to 1000-lbs. is applied which forces the lubricant into the bearing. The amount of lubricant can be adjusted to .005-cu.in.—enough for 32,000 shots from the 5-lb. grease or 2½-quart reservoir.

Wheel spacing is no problem—they can be yards apart, irregular in spacing or as close as 8-in. on centers, and it is as easily adaptable to wheels of different size.

New White Litho Coating

A new Basic White for metals, developed through a different technical approach by the Watson-Standard Co.'s laboratories offers remarkable properties. This coating has the properties of alkyd type coatings but retains the ease of handling of oleoresinous coatings. It is reducible with mineral spirits and may be tinted with either oleoresinous tinting colors or alkyd tinting colors. Color retention on initial baking or re-baking is excellent. Ease of fabrication is a feature, including that of forming screw caps.

Adaptability to baking schedules, whether they are long periods at relatively low temperatures or short periods at higher temperatures adds to the coating's usefulness. The surface of this white presents a perfect background for printing, making it ideal for the lithography industry. Since

WITH

LIQUID ENVELOPE

PEELABLE PROTECTIVE PLASTIC FILM

Keep your booths firesafe this labor-saving way:

1. **Scrape down and spray on "LIQUID ENVELOPE" with your regular spray-equipment.**
2. **When overspray accumulates, break "LIQUID ENVELOPE" skin and peel off in great, big pieces. Re-spray.**

That's all there is to it! You save labor . . . promote fire safety . . . get better illumination. Costs less than outmoded hand-scraping or grease-papering. Order 5 gallon Test-Sample at the Drum Lot price. Hundreds of smart operators have!

BETTER FINISHES & COATINGS, INC.

268 Doremus Ave., Newark 5, N. J. • 122 E. 7th St., Los Angeles 14, Calif.

DISTRIBUTED BY

Aviation Lubricants Co., San Diego, Calif.
General Spray Equipment Co., Boston, Mass.
Bay State Spray Equipment Co., Springfield, Mass.
Lea Manufacturing Co., Waterbury, Conn.
Edgcomb Steel of New England, Milford, Conn.
Kellermann Paint Co., New York, N. Y.
Granek Paint Co., Newark, N.J.
H. J. Gettemuller Co., Inc., Baltimore, Md.
R. W. Renton Co., Cleveland, Ohio, Indianapolis, Ind.
Supplee-Biddle-Steltz Company, Philadelphia, Pa.
Dean & Barry Co., Columbus, Ohio
Vic Miner Co., Toledo, Ohio
Abrasive & Supply Co., Detroit, Mich.
Melson Industrial Supply Corp., Grand Rapids, Mich.
O'Donohue Sales Co., Milwaukee, Wis.
Paints & Lacquers, Inc., Chicago, Ill.
Tanner & Co., Indianapolis, Ind.
Metal Goods Corp., St. Louis & North Kansas City, Mo. Dallas & Houston, Texas, Denver, Colo., New Orleans, La., Tulsa, Okla.
Hubbard & Stau, Los Angeles, Calif.
The Plastic Paper Co., Los Angeles, Calif.
C & H Supply Co., Seattle, Wash.
Hugh Russel & Sons, Ltd., Montreal & Toronto, Canada

the solids are high, it not only presents a versatile coating but an economical one as well.

This new type of basic white has been field tested and proven. To date, it has been used successfully for coating the outsides of cans, can ends, crowns and closures, metal toys, candy boxes, exterior of cannisters, and oil filters.

Sold under the code number 13-558, Basic White Litho is available either as a toned or untoned white. Further technical information may be obtained by contacting the Watson-Standard Co., 225 Galveston Ave., Pittsburgh 12, Penna.

Sealer Prevents Bleeding, Staining, Lifting and Wrinkling

Prufcoat Laboratories, Inc., announces the availability of a new product, Prufcoat Sealer P-25 M, which opens a vast new field of application possibilities for vinyl and other heavy-duty protective coatings.

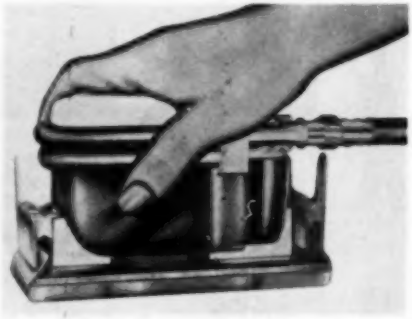
Consisting of carefully selected synthetic resins and a special combination of leafing-type metallic pigments, Sealer P-25M air-dries by the simple evaporation of volatile solvents chosen to have a minimum effect on conventional oil paints, asphalt coatings, and similar materials.

The new Prufcoat forms an effective barrier film over all surfaces which might otherwise be lifted or wrinkled by the active solvents in vinyl and other synthetic resin coatings. In addition, the new product is an excellent anti-staining sealer for use over such materials as tar, oils, pitch, etc.

Readers who desire further information concerning Prufcoat's new anti-staining Sealer P-25M, should write for Prufcoat Technical Bulletin No. 023. Address such requests to Mr. G. Russell Hersam, General Sales Manager, Prufcoat Laboratories, Inc., 50 E. 42nd St., New York 17, N.Y.

New Smaller Light-Weight Single-Pad Air Sander

A new smaller, lighter, reciprocating air-powered Model J-R Detroit Easy Finisher is announced by the Detroit Surfacing Machine Co., 1333 E. 8-Mile Road, Detroit 20, Mich.



Weighs 4-lbs.; 4500 strokes per minute.

Features of the new Model J-R are light-weight (only 4-lbs.), smaller uct, Prufcoat Sealer P-25M, which comfort; Air Switch type control; No-Surge automatic mist-type water spray for wet sanding; easy to use abrasive holder for attaching several sheets of sandpaper at one loading; fast cutting and 4,500 strokes per minute operation on air pressure of only 50 to 60-lbs.

A slide action design for attaching the detachable sanding pads allows for up to a 2-in. off-center adjustment of the pad. Off-center pad position permits sanding in grooves (drip molding), up to protruding trim and other hard-to-get-at areas. Also it provides for instant attaching of desired type of sanding pad to fit the job.

The new sander operates with the same Strate-Line reciprocating action that has been a feature of Detroit Easy Finishers for over a decade. It is powered with the sturdy proven vane type motor used on the larger Model AF.

FUNCTIONAL FINISHES ! !

If you require your coatings to accomplish some specific task—something beyond mere ornamental appearance or average longevity—

TRY US!

We make ACRYLIC, ALKYD, CELLULOSIC and VINYLOID coatings for a very wide range of specialized industrial applications.

THE VARNISH PRODUCTS COMPANY
5206 Harvard Avenue **Cleveland, Ohio**

Gold Finish on Aluminum

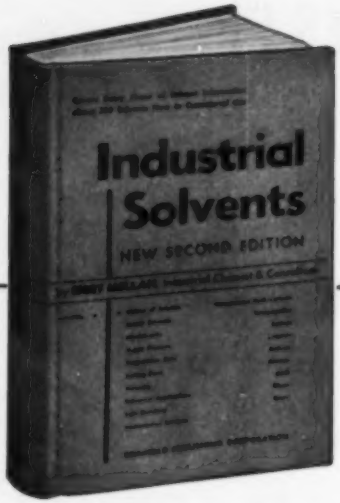
Possibilities for countless new uses for aluminum have opened up with the recent introduction of a new process called D'orium by Miracle Finishes, Inc., 10 Water St., Brooklyn 1, N. Y.

D'orium, licensed to Miracle Finishes, Inc., exclusively in the United States by Coloral, S. A. of Switzerland, gives aluminum a gold finish which is so realistic that it is almost impossible to detect the difference by eye alone between it and genuine gold. Six shades of gold can be achieved, as well as many other colors, all of which have a high luster and are non-corrosive. The finish will not tarnish or discolor and since it is an integral part of the metal itself it can't chip, peel or crack.

Through D'orium, aluminum can now be used in hundreds of places which heretofore called for heavier or expensive metals. In addition, its cost is low enough to encourage wide use in many industries. No gold is used to obtain this lifetime finish.

Watertight Rubber Putty

A rubber putty, called "Plastikon," that is watertight, airtight and does not become brittle is described in a catalog just published by The B. F. Goodrich Co., Akron, Ohio. Plastikon is recommended for all purpose glazing and sealing of wood, glass, metal and stone. The rubber base putty has permanent pliability, withstands vibration, expansion and contraction, high and low temperatures; resists corrosive fumes, salt water and mild organic vapors. Even when used in refrigerated cold cabinets, Plastikon remains pliable.



This new edition is an excellent text and reference book of 758 pages, containing a tremendous amount of authentic and complete information on industrial solvents and their uses—for example, in cleaning and finishing materials and wherever solvents are used in industry. The revised contents are organized and classified in easy-to-read, easy-to-find form for practical busy men.

Its practical contents are divided into 16 chapters, some of which include such headings and sub-headings as solvents, non-solvents, evaporation rate, boiling point, flash point, toxicity, viscosity, safe handling, hydro-carbon solvents, alcohols, ketones, acids, ethers, esters, etc. It contains many new charts, illustrations and conveniently tabulated material, all developed to help the reader grasp the factual information quickly. The alphabetical subject index covers 11½ pages.

This book will prove valuable to key men in the industrial field, who have responsibilities in connection with the cleaning, surface conditioning or preparation of products for painting, plating or polishing, and those concerned with the selection, purchase, storage, handling, testing or use of finishing materials and thinners for same.

Price $12.00—Money Back Guarantee.

INDUSTRIAL FINISHING

1142 N. Meridian St. Indianapolis 4, Ind.

Dry Chemical Fire Fighter

A new, powerful, one-man fire-fighting wheeled engine for extinguishing large-scale B and C fires is announced by the American-LaFrance-Foamite Corp. of Elmira, N.Y., manufacturer of fire-fighting equipment.

The new Model 150 is only 480-lbs. in weight, fully charged, and can be easily wheeled, maneuvered, and operated by one man. It carries the inspection and approval label of Underwriters' Laboratories, with B and C classification.

The smothering action of its deadly discharge on fire is reported to be sensational. Blistering hot blazes are said to be quickly extinguished. The density of the dispersion of its sustained pressurized discharge has a phenomenal effect of cooling and insulating the operator from the intense heat of the fire. Aided by an excellent discharge range of from 20 to 25-ft., this cooling effect on the operator enables him to move up quickly on the

A one-man dry-chemical fire fighter.

No. 150
SpeedWay SpeedSander Sands, Rubs, Polishes
. . . FOR DRY OR WET FINISHING
Motor-Driven
3/16" Orbital-Motion

Powerful, direct-connected (no gears), 3450 r.p.m., 100-120 v AC air-cooled motor. All sealed ball-bearing construction. Die-cast aluminum housing, polished. All-position handles. In hand weight only 5 lbs. Insulated with ground wire for wet as well as dry sanding or rubbing. Available accessories—deep contour pads, surface plates, felts, etc. Takes any sheet abrasives—3 covers 4½" x 6½" from standard 9" x 11" sheet.

A time saving quality tool priced so every worker can have one.

$34.50

Write for Circular

SpeedWay MANUFACTURING CO.
1886 So. 52nd Ave., Cicero 50, Ill.

fire and blast it out with the full force of the smothering chemical.

The expellent is dry nitrogen, with a sustained operating pressure of 200-psi during the entire period of discharge. All the contents can be discharged in about 45 seconds, if necessary. However, the nozzle lever has a spring loaded mechanism which permits opening or closing the nozzle at the option of the operator.

Water Tank Paint (For Tank Interiors)

Innox Tank Coating No. 450 is designed especially for marine service and has been tested as a safe and enduring protective coating for the interiors of steel tanks that hold drinking water. It is definitely non-toxic.

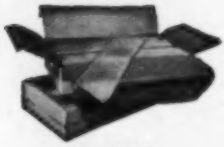
Innox No. 450 is an air drying plastic with aluminum. It dries by evaporation and polymerization to a tough finish resistant to water and oil. Two, if not three coats give best results. One coat is insufficient to insure non-penetration. It can be applied by either spray gun or brush; has no objectionable odor and dries hard overnight, ready for recoating. A special anti-corrosive agent (also non-toxic) permits Innox No. 450 to be applied without a primer whenever necessary, although this coating will adhere well to conventional zinc chromate primers, etc.

Wherever constant immersion in salt or fresh water is anticipated (applications that raise havoc with so many standard paint finishes) Innox No. 450 Tank Coat, applied in several coats, will give long-lasting protection. This material is a product of Richmond Marine Compositions Co., 708 Van Duzer St., Staten Island 4, N.Y.

For Dust Free Finishes!

BOND TACK CLOTH

IN ROLLS
Cut off any size piece to use as needed.



IN BULK
Cut and folded. Ready to use.

STAYS SOFT AND TACKY
A SPECK-FREE FINISH EVERYTIME

Now Available in Rolls or Cut Bulk—White or Gold. In Three Different Types of Cloth

Get your Tack Cloth packed just the way it's easiest for you to use . . . either in 150 yard rolls of 36" wide cloth or in handy cartons . . . 100 or more Tack Cloths to the carton.

No matter which way you buy it, you can be sure that every square inch will stay SOFT and TACKY until the very last bit is used up!

The Cut Bulk size is 18" x 36" . . . folded to 4½" x 18" for ease of handling. ALL BOND TACK CLOTH is Spontaneous Combustion Proof, Lint-Free and Wax-Free. Gives a sparkling speck-free Finish every time. Clean and sanitary. No waste.

TRY THEM and COMPARE RESULTS.
Samples Gladly Sent Upon Request.

BOND CHEMICAL PRODUCTS CO.
"The Tacky Wiper Specialists"
2641 N. CLYBOURN AVE. CHICAGO 14, ILLINOIS

Also Individually Packed in Glassine Envelopes—144 to the Carton

A Warranty of Satisfaction in Every Carton

Roylac Aluminum Paint

Royston Laboratories, Inc., Blawnox, Penna., has developed a new product, "Roylac Aluminum," which is a high quality industrial aluminum coating with the newly developed non-spattering feature.

With standard spray gun equipment and pressures, the aluminum coating can be sprayed on products or parts, or even wire fencing, with overspray controlled so that objects more than 4-ft. in the background are not marred or damaged by spattering.

Due to the special vehicles and solvents in the new coating, the material dries in motion through 4-ft. of travel, the residue falling away as a dry, cottony, non-adhering powder. Because of this controllable overspray, the new material has many possibilities in industrial spray coating.

Roylac Aluminum provides a tightly bonded corrosion-resistant film with a bright aluminum finish, particularly effective where there is exposure to acid or alkali fumes, salt or moist air and other commonly encountered corrosive atmospheres.

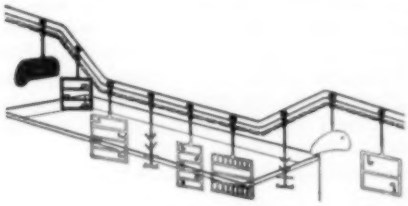
The material is plasticized to provide a film of good flexibility and bonding tack, effective for sealing wood, concrete and other porous surfaces. With its non-reactive vehicle, Roylac is excellent for coating galvanized, zinc, magnesium, steel and other basic metals. It has been accepted as an economical, fast drying product finish coat; it covers 600 to 800-ft. per gallon and dries to a tack-free film in 12 minutes.

Roylac is based upon use of a clear, styrene-type vehicle, possessing excellent chemical stability and high moisture resistance. The vehicle is tough, horny, non-reactive with aluminum pigments and is quick-drying, by evaporation rather than oxidation.

The proper blending of aromatic solvents produces films free from crazing, alligatoring or peeling. Roylac Aluminum contains 2-lbs. of aluminum paste per gallon, and is furnished ready-mixed for use without thinning. The coating remains stable and non-reactive in the container.

Continuous Paint Stripping Is Now Practical

The stripping of paint from conveyor hooks, hangers and other conveyor line handling equipment, as well as paint rejects, can now be done rapidly by a new stepped-up method. New paint stripping chemicals make it possible to make the job a regular production conveyor line operation. Announcement of this new development which meets rigid industrial specifications is made by T. Curtis McKenzie, president of Klem Chemicals, Inc., 14401 Lanson Ave., Dearborn, Mich.



Once through the tank and they are clean.

The procedure, according to the Klem release, provides for running the conveyor line hangers, etc., through a tank of the one-step stripper at a given point. Prior to reaching this stage, finished work pieces are removed and at this point, accumulated paint rejects can be placed on the line to be stripped along with the equipment. Extensive tests indicate a savings up to 90% in time.

The new high speed, one-step stripper can also be applied by production spray methods if desired.

THINNERS

- LOW COST!
- ASK FOR QUOTATIONS!
- FORMULATED TO MEET ANY SPECIFICATION.
- QUALITY AND UNIFORMITY GUARANTEED.
- SHIPPED IN TANK CARS, TANK WAGONS, DRUMS OR 5 GAL. CANS.

Prompt service and deliveries.

ELL-BEE CHEMICAL CO., Inc.
HANOVER N. J.
Phone—WHippany 8-0194

There's No Substitute for Me... in Your Finishing Department!

Remove all dust, lint and sand particles from any surface with **Detroit Handy "Tac" Rags** before painting. Save time and materials. Ready for instant use. Never harden or dry out.

Complete Satisfaction Guaranteed!

Standard of the FINISHING INDUSTRY Since 1934
DETRO MFG. & SALES CO., CULVER CITY, CALIFORNIA

BOOKS
On Finishing Available

"MODERN ORGANIC FINISHES—Their Application to Industrial Products" (452 pages) new $8.50

"CHEMICAL FORMULARY" (Vol. IX) 7.50

"FINISHING METAL PRODUCTS"—2nd edition (362 pages) 5.50

"PRACTICAL FURNITURE FINISHING" (112 pages) 1.50

"FURNITURE FINISHING" (543 pages) 5.00

"SPRAY PAINTING"—Industrial and Commercial (169 pages) 2.50

"THE MIXING OF COLORS AND PAINTS" (292 pages) 3.00

"WOOD FINISHING" (361 pages) 3.00

"NATIONAL PAINT DICTIONARY" (784 pages) 7.50

"MODERN POLISHES AND SPECIALTIES" (313 pages) 7.50

"PRACTICAL COLOR SIMPLIFIED" (128 pages) 5.00

"GRAINING"—Ancient and Modern (224 pages) 5.00

"THE SILK SCREEN PRINTING PROCESS" (225 pages) 5.00

"SCREEN PROCESS METHODS OF REPRODUCTION" (253 pages) 4.00

"THE SCIENCE OF WRINKLE FINISHING" (204 pages) 5.00

"THE SCIENCE OF MODERN WOOD FINISHING" (386 pages) 6.00

"PAINT & VARNISH TECHNOLOGY" (589 pages) 8.00

"METALLIC AND NON-METALLIC COATINGS FOR GRAY IRON" (76 pages) 1.75

"PAINT FILM DEFECTS — Their Causes and Cure" (544 pages) 12.00

"INDUSTRIAL SOLVENTS" (764 pages) 12.00

"FINISHING MATERIALS AND METHODS" (320 pages) 4.00

Cash Must Accompany Order—
Send for Descriptive Circular

INDUSTRIAL FINISHING
1142 N. Meridian St. Indianapolis 4, Ind.

Prevents Wood From Swelling, Warping, Checking

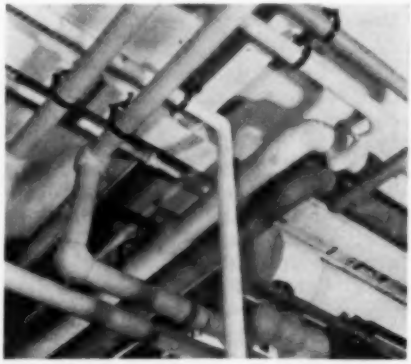
Nelsonite No. 31 Panel and Drawer Finish, manufactured by Nelsonite Chemical Products Co., 900 Monroe Ave., N.W., Grand Rapids, Mich., is formulated to impart dimensional stability to furniture drawers, cabinets, woodwork, interior doors, paneling and other wood articles. The new finish has 30% solids and 2% wax. These penetrate deep into the wood, the Nelsonite laying the grain while the wax gives a smooth finish.

Water and moisture repellant, the finish affords protection against most forms of wood distortion from age, heat, inclement weather and humidity, it is claimed.

Tough Plastic Color Coat for Hot and Cold Pipe, Tanks

A new plastic coating for use as both protection and color identification on insulated refrigerant, cold water, steam and other lines and insulated equipment has been developed by the Armstrong Cork Co., Lancaster, Pa. The new finish, called "Insulcolor," is a tough plastic coating that can be either brushed or sprayed on.

Insulcolor will withstand tempera-



Lasting protection and color identification.

West Coast Distributor: H. Behlen & Bro., Inc., 1755 Berkeley St., Santa Monica, Calif.

tures to 160° F. without cracking, shrinking, or crazing. It may be used over heat insulations, cork pipe covering and lagging, and also as a finish over cork-insulated air conditioning ducts.

Insulcolor is available in white and six colors. For jobs where color is not desirable or required for line identification, white provides an attractive, sanitary surface. Insulcolor can be applied over standard asphaltic finishes without danger of bleeding through.

The tough finish furnishes high resistance to bumping and abrasion. It has high water resisting properties which make it suitable for either inside or outside applications. No inflammable solvents are used in Insulcolor so that it's safe to use on the job. When dry, it is classified as fire-retardant. It is also entirely odorless.

Indicating Viscometer

The Norcross Corp., Dept. N24, Newton 58, Mass., has supplemented its Recording Viscometer line with a new Indicating instrument for applications where a permanent record is not required, and where the price for recording equipment isn't justified.

The new model is designed for either panel or wall mounting, and is furnished with a 6-in. dial. It can be supplied as an indicator-controller for some automatic control applications.

This indicator is used with the company's basic measuring elements which operate on the principle of measuring the time required for a piston to fall a given distance through the solution being measured. The indicator can be remotely located any reasonable distance from the measuring element.

HERE ARE enumerated in this remarkably valuable book of 544 pages, all of the common and a variety of unusual and seldom heard-of defects and objectionable features that occur in paint, varnish, lacquer and synthetic enamel finishes; their probable, possible or real causes given; the effects described, and means of preventing and remedying these troubles fully outlined.

Chapters deal with these defects and troubles as they occur, 1) during or as a result of storage and preparation of materials before finishing; 2) when the materials are applied by various production methods and equipment; 3) during handling, processing or drying after application; and finally, 4) when and after the finished goods are shipped, displayed, stored or placed in service.

Defects covered include many more than could be named here, but to mention just a few there are; runs, sags, tackiness, films, too thin or too thick, slow drying, orange peel, aligatoring, wrinkling, pimples in films, pin holing, cracking, blistering, lifting, bleeding, blushing, blooming, discoloration, rainbow effects, gloss and dull areas, grained appearance, and scores of others.

Practical information is also revealed in reference to safety precautions to prevent fires or accidents in paint shops and finishing rooms, skin troubles of workmen, poison from paint materials and fumes.

By referring to the "subject Index" of 84 pages in back of the book, it is possible to locate quickly, the answer to any particular failure, cause or remedy.

Price $12.00—Money Back Guarantee.

INDUSTRIAL FINISHING

1142 N. Meridian St. Indianapolis 4, Ind.

Fire Retardant Paint Tests

A device for testing the effectiveness of fire retardant paints — the "stick and wick test apparatus"—is offered by Gardner Laboratory, Inc., Bethesda 14, Md. According to the company's literature:

"The device provides a rapid, inexpensive method for determining a fire retardant index based on averaged data covering flame spread, char height, and weight loss. This index number shows the percentage reduction in combustibility of wood due to its protective coating.

Infrared Oven Sections Have Heat Ray Tubes

Corona Mfg. Co. (complete finishing systems), 5210 San Fernando Road, Glendale 3, Calif., has developed what it calls Corona-Merco Infrared Oven Sections (12 to 30-in. wide and 2 to 8-ft. in length) which can be easily set up in various positions for the rapid high-heat drying of paint and enamel coatings. What produces the heat is a series of Merco heat ray tubes positioned in front of reflectors.

Merco radiant heat tube and reflector.

Referring to the heat ray tubes used in its oven sections the company's letter declares that:

". . . only two connections are required . . . the tube is guaranteed for one year, and actually lasts many times longer. The tube is designed to resist thermal and mechanical shock, and gives no hot-spots. Because it contains no gas and operates at atmospheric pressure, it cannot explode; thus reducing fire hazards. The oper-

ating cost is low . . . because the power consumed is transformed into heat, not light. The tube emits merely a faint glow when in operation. This is a most important feature in applications involving colors which are light sensitive and tend to fade.

For Finishing Zinc and Aluminum Die-Castings

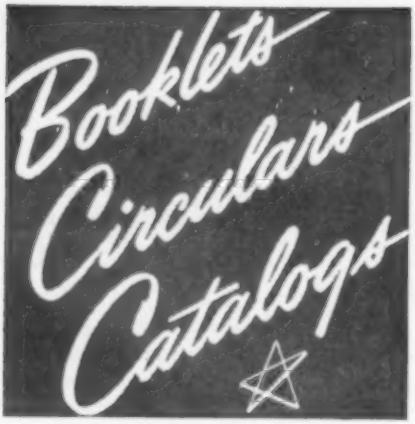
The Hanson-Van Winkle-Munning Co., Matawan, N.J., announces a new series of aluminum oxide compositions for the coloring operation in the finishing of zinc-base and aluminum die castings. Laboratory tests and supporting field data indicate that these aluminum oxide compositions give castings of these metals the desired luster or color faster than was before possible.

The aluminum oxide compositions may also be used in steel and stainless steel finishing. For additional information, write to the Hanson-Van Winkle-Munning Co., Matawan, N.J.

Synthetic Pearl Effects

Shuman Chemical Products, Inc., 20 Factory St., Cedar Grove, New Jersey, announces the development of a new process in the manufacture of its synthetic pearl pigments, Chem-Scale-R and Nu-Scale-R, which greatly increases the luster, coverage and hiding properties of these products, making them compatible for use in polyester resins and vinyl plastics, as well as improved for use in cellulosic plastics.

Up to this time it has been difficult to obtain a Mother-of-Pearl effect in polyester resins and vinyl plastics, but this effect can now be achieved with Chem-Scale-R and Nu-Scale-R.



Prevents Mildew and Mold

Chemicals for protecting paints and painted surfaces against mildew and mold are reviewed in a bulletin, 11652H, prepared by the development department of Monsanto Chemical Co.'s Organic Chemicals Division, St. Louis 4, Mo.

Rubberized Abrasives

A new 8-page bulletin illustrates, describes and shows how to use various Rubberized Abrasives (cushioned action performance) such as wheels, points, blocks, sticks and cones for cleaning, smoothing, polishing, etc. For a free copy, contact Cratex Mfg. Co., 81 Natoma St., San Francisco 5, Calif.

Paint Strainers; Stirring Paddles (Wood or Metal)

Illustrated bulletins which show and list cone-shaped paint strainers 6-in. in diameter with paper reinforcement and different size mesh, are offered by Louis M. Gerson Co., 98 Deering Road, Mattapan 26, Mass. These bulletins also list paint paddles (wood or metal) for stirring paint, enamel, etc., color cards and yardsticks.

Rotoblast Bulletin Free

Pangborn Corporation of Hagerstown, Md., announces the availability of a 12-page, 2-color Bulletin No. 223 on the new Blastmaster Rotoblast. Showing the new "GN" Barrel, the bulletin illustrates the eight exclusive construction features that make this new machine (airless cleaning) especially attractive to the metal finishing industry. One of its many features shown is a steel-mesh abrasive-tight door.

"Plastics Packager" Free

The first issue of "Plastics Packager," a new publication by Monsanto Chemical Co.'s Plastics Division, was introduced recently to 25,000 users of packages, premiums and displays.

A 4-page, illustrated leaflet, the publication is devoted primarily to new and interesting applications of the Plastics Division's packaging materials.

Maintenance Paint Folder

A 6-page illustrated color folder by The Skybryte Co., 3125 Perkins Ave., Cleveland 14, Ohio, contains a detailed description of a complete line of maintenance paints for inside and outside use. Twelve products including factory glass cleaner, chain link fence paint, heat resisting interior and exterior aluminum paint, acid and alkali resisting aluminum and black, among others, are completely described.

Catalog of Wire Cloth Belts

The Cambridge Wire Cloth Co., Cambridge, Md., has issued a new catalog for its wire mesh conveyor belts. Totaling approximately 140 pages, the new catalog gives data on uses for wire mesh belts including photos and flow sheets, selection of belt specifications, conveyor design, belt drive mechanisms, etc. In many ways the new catalog is a reference manual of wire mesh belt design and use.

Fluorescent Luminaire Booklet

A 24-page pocket catalog, B-5799, of fluorescent commercial and industrial luminaires is available from the Westinghouse Electric Corp., Box 2099, Pittsburgh 30, Penna.

Detailed descriptions accompanied by photographs and diagrams of each of the luminaires tell where the respective types are applied, what models are available, features of each, and their dimensions.

Solvent Book Free

A new revised book of 64 pages explains the properties and applications of key organic solvents in non-technical language. It is pocket-size for easy reference. To get your free copy write or call your nearest Solvents & Chemicals Group member today.

Editor's Note: This mompany's 2-page advertisement appears in every issue of Industrial Finishing, and the full address of one of the group members appears in each advertisement.

H-V W-M Bulletin on Buffs

Hanson-Van Winkle-Munning Co., Matawan, N.J., announces a new 12-page 8½ x 11-in. bulletin (B-100) on disc-type buffs for cutting and coloring. Covering three basic types of buffs, the bulletin contains 20 illustrations and four tables. It tells when to use and how to specify pieced buffs, full disc buffs and the new Acme ventilated Ruff-L-Buff. Also covered are Acme ventilated contact wheel sections used with abrasive belts.

Free Book on Stripping Paint

A new 13-page Octagon Fact Sheet booklet of instructions on paint stripping has just been published by Octagon Process Inc., of 15 Bank St., Staten Island 1, N.Y. It describes in detail and gives exact procedures for using 11 tailored types of Octagon Paint Strippers designed for stripping practically any finish from all metals (including aluminum and delicate alloys) and from all woods. There is also a hint sheet which gives valuable information on paint stripping generally. A handy, quick reference chart makes selection of the right stripper for the job easy.

Corrosion Proof Tubing

A new bulletin, L-6506, on corrosion-proof Dekoron Instrument Tubing is announced by Samuel Moore & Co., Dekoron Tubing Division, Mantua, Ohio.

The bulletin describes the several different kinds of corrosion-proof Dekoron Tubing: Dekoron Instrument Tubing, single-line metal tubing with plastic sheath; Dekoron Impervapak Metl-Cor, multiple metal harness with polyethylene coating; and Dekoron inpervapak Poly-Cor, multiple polyethylene tube harness with vinyl sheath. Impervapak Meti-Cor is available with 4, 7, or 10 tubes; Impervapak Poly-Cor with 4, 7, 10, 14, or 19 tubes.

Adjustable Ramps for Loading

A colorful, 4-page brochure, illustrating and describing its Adjust-A-Dock and Adjust-A-Truck is available from Rowe Methods, Inc., 2534 Detroit Ave., Cleveland 13, Ohio.

Both units are designed to increase handling efficiency on shipping and receiving docks. The Adjust-A-Dock bridges the difference in height between docks and rail cars and highway trucks, so that goods flow directly to and from the building and the carrier. The unit can more than triple freight-handling capacity, cutting handling time by maintaining proper carrier and dock alignment at all times. The Adjust-A-Dock can be installed recessed in the dock or in front of the dock as required.

Industrial Oven Bulletin

A variety of oven installations—paint and enamel baking and others—are shown attractively in a new 8-page bulletin (8½x 11-in.) printed in two colors and now available through the oven manufacturer, Carl Mayer Corp., 3030 Euclid Ave., Cleveland 15, Ohio. Both conveyorized and batch type ovens, gas fired and oil fired, are shown. Many of these installations are in the plants of big-name concerns in industry. The company's Mr. Mayer has had more than 30 years' experience with industrial ovens. Ask for bulletin No. 350.

Automatic Timer Controller

A new technical information sheet issued by The Foxboro Co., Foxboro, Mass., covers operation of Model 40 Elapsed Time Controllers, which automatically control the measured variable (temperature, pressure, etc.) at the desired value for a preset period of time. This type of control has wide application in many industries where process time is a vital factor.

Designed for batch or repetitive processes, the instrument is described in its two major forms: controlling total "rise" and "hold" time, and controlling "hold" time only.

Forming, Finishing Aluminum

Reynolds Metals "Technical Advisor" Number 20, just published, has a feature article devoted to stretch forming—one of the most advanced forming methods for aluminum. It is especially important for applications where it is necessary to avoid possible "spring-back" or change of shape after forming. E. V. Sharpnack, Sr., Reynolds Chief Forming Engineer, details the process, the aluminum alloys and tempers suitable for use with it, forming blocks, lubricants and the like.

The current issue of the "Technical Advisor" also carries the second article in a new series on "Finishes for Aluminum," taken from Reynolds technical manual on this subject.

Industrial Elevators Bulletin

Bulletin 5211, just released, presents the complete Barrett line of industrial elevators and portable cranes.

In this 36-page bulletin Barrett portable elevators are shown in hand and electrically operated types, and with single, hinged and telescopic uprights. These portable elevators are available with load capacities from 500 to 5000-lbs., any platform dimensions required, and with lifting heights up to more than 30-ft. Low-priced standard models, which will meet most elevator requirements, are shown with specifications.

Bulletin 5211 will be mailed upon request by Barrett-Cravens Co., 4609 S. Western Blvd., Chicago 9, Ill.

Industrial FINISHING Editorial

Conveyor Side Sway? Put in Guide Rails

Every notice a workman having to pause and steady a swinging tray under an overhead conveyor before loading or unloading it? That wastes time and energy and sometimes results in a slow-down on the line. It's definitely a nuisance.

This side sway on the part of trays or racks hanging from the conveyor can be prevented by installing guide rails parallel to the line of conveyor travel. If it is not practical or possible to place the guide rails above or alongside the trays, then vertical rod extensions may be designed to fasten under each tray or rack or under its supporting bracket. Then the parallel guide rails will be set up where needed to engage these projecting rods under the trays. Guide rails may be needed only at loading and unloading stations—or it may be desirable to have them at certain intermediate points.

When the trays or racks are traveling along steady, without side sway, the workman can use both hands for loading or unloading.

REPRINTS AVAILABLE

"The Theory and Practice of FINISHING FURNITURE"

from October, November, December, 1951, and January, February 1952 Issues.

PRICE 20 CENTS PER COPY—Stamps Accepted.

INDUSTRIAL FINISHING Magazine

1142 N. Meridian, Indianapolis 4, Ind.

We Need More Trained Engineers, Technicians

★ The need for practical engineers is getting more acute every year. Is large industry strangling its own future advancement by not providing the proper training facilities for graduating engineers?

It is a known fact that our colleges are not furnishing nearly enough engineers to fill the ever increasing demand for this type of employee; and we know that a large percentage of graduates are lured into other fields of activity by the promise of a larger immediate salary.

Large industries could and should utilize all of this available talent by setting up an attractive training program that would act as an incentive to hold apprentice engineers in the engineering profession.

In my sales contacts I deal with engineers every day, and I find that it is a rarity to meet one with the necessary practical knowledge to qualify him for his job. Most of them have text book knowledge, yes; however, at least 90% of them lack the practical

★ *Guest Editorial . . . Many readers can write an excellent editorial—two or three paragraphs that present a timely suggestion or valuable idea which will stimulate thought on a live subject. The Editor welcomes guest editorials and pays for those used.*

33⅓% SAVINGS
IN TIME AND MATERIAL!

Reduce Unit Cost . . . Improve Finish Quality!

HOT SPRAY!

Versatile
SPEE-FLO
PRESSUREMATIC
HOT-SPRAY HEATERS

500-C CIRCAFLO Circulating Pressurematic For Wide Mobile Operation.

Model 300-A at left, $89.50 complete.

LOW FIRST COST!

MARKED MATERIAL SAVINGS! Improved Build and Holdout . . . Speeds Application Time

Maintenance FREE!
No Coils to Clog!
No Gears to Wear!

THE SPEE-FLO CO.
720 POLK AVE., HOUSTON 2, TEXAS
Builders of Practical Automotive and Industrial Hot Spray Equipment.

Investigate the advantages of hot spray today!

THE SPEE-FLO CO.
720 Polk Ave., Houston 2, Texas

Gentlemen: Please send me information on the Spee-Flo Hot Spray Heaters best suited for our present needs:

Type of products being finished _____

Application is: Conveyorized ☐ Turntable ☐ Mobile ☐ Other ☐

Average volume of material per gun per hr. _____

Please have a representative call ☐

ACORN CHEMICAL CO. WATER WASH TOLEDO, OHIO
ACORN BRAND

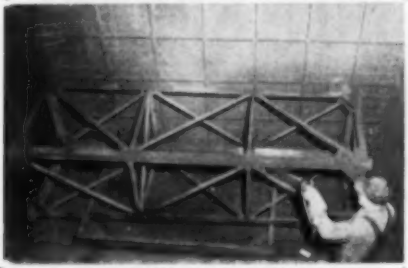
A liquid water treatment for Spray Paint Booths

- *Unites Readily with Water*
- *Non-Foaming*
- *No Pre-mix*

Send for literature . . .

ACORN CHEMICAL CO.,
618 Winthrop, Toledo 10, Ohio

WHO SAID PAINT OVERSPRAY REMOVAL IS A PROBLEM?



A wall of R P Paint Arrestors and a blower solved the paint overspray removal for the manufacturer of these steel sections. R P Paint Arrestors . . . easily, inexpensively installed are more efficient, more economical in operation. Write for free booklet with helpful overspray removal suggestions.

RP . . . PRODUCTS OF RESEARCH

RESEARCH PRODUCTS CORP.
Dept. 34 Madison 10, Wis.

shop training which should be available to them in their own company's plant.

A long range training program could be set up by several large industries, for less cost than they are now subjected to through the present shortage of competent key personnel. I believe that labor would welcome such a program.—*H. J. Willis.*

Doesn't He Click? Try Him Elsewhere

★ Occasionally you may find you have hired a young man for your finishing department who just doesn't quite make the grade. He is seldom absent or late for work and he tries his best to develop what it takes to do the job. Eventually, both you and the worker will agree that he doesn't fit the job.

Before you let him go, talk things over with him and find out if he has any desire to do office work. His abilities and aptitudes may be along those lines. Perhaps his poor record in production came only from lack of mechanical skill, but with some additional training he may develop into a valuable man in the office. The time he has already spent in the finishing department will give him a production background, which may add to his value in the office.

With so much emphasis on improved methods, equipment and techniques, management may overlook the growing importance of purchasing, accounting, and record keeping. Among those workers you screen out of production positions, you may discover one or two who need only the opportunity and some additional training to bring real efficiency and profit into office details connected with some department of the business.—*G.M.D.*

Cleaning Compounds for Electroplating

Cleaning problems that confront the electroplating industry and suggested methods of treatment and solution of those problems are thoroughly and concisely covered in a new booklet issued by Magnuson Products Corp., 50 Court St., Brooklyn 2, N.Y.

The new booklet, handsome and easy to read with a comprehensive cross-index, delves into job definitions, job requirements and the considerations necessary in choosing the proper cleaning materials for the job at hand.

In addition, safety notes, operating practices and conversion factors and formulas enhance the value to all engaged in electroplating.

Latest in Modern Finishes

Latest developments in industrial finishes of the future were previewed in Cleveland March 4 and 5, when Glidden Co. sales, service and technical personnel from all over the United States and Canada convened to discuss new and revolutionary developments in protective and decorative coatings used by manufacturers.

More than 200 Glidden representatives were present, along with about 20 guests, leaders in allied fields.

An unusual feature of the Glidden conference was a panel of eight top-ranking executives from process and equipment industries allied to the paint field. They spoke at forums on metal preparation and finishing methods.

A. D. Duncan, Glidden vice president and general manager of the paint and varnish division, stressed the value of these forums in improving Glidden service to customers.

William G. Torrace Joins Standard-Toch Chemicals

William G. Torrace has been appointed comptroller of Standard-Toch Chemicals, Inc., Staten Island, N.Y., manufacturer of industrial and architectural paints and finishes for more than 100 years.

For the past 15 years Mr. Torrace was a member of the manager's staff of another firm in New York; prior to that he was assistant treasurer of an air conditioning company.

He is a member of the American Institute of Accountants, the New York State Society of Certified Public Accountants, and the National Association of Cost Accountants.

Two Men in Detrex Corp. Advanced

Detrex Corporation of Detroit, manufacturer of industrial cleaning equipment and chemicals, announces the election of P. H. Richey as assistant treasurer and F. J. Chmielnicki as assistant secretary.

P. H. Richey and F. J. Chmielnicki

After graduating from the University of Michigan, Mr. Richey was associated with the Detroit Bank before joining Detrex in 1948. Advancing through various positions in the Controller's office, he was appointed personnel director in 1950. Then he was assigned to special duties in the office of E. W. Allison, terasurer.

Mr. Chmielnicki has been with the company for 11 years as counsel and as head of the Detrex Legal Department. Graduate of the University of Detroit, he is a member of the Detroit and Michigan Bar Associations. He is on the executive committee of the Michigan Section of the American Industrial Hygiene Association, and a member of the Michigan Patent Law Association.

Random Comment on the Industrial Scene

(Continued from page 8)

assure smooth, clean raceways for electrification. Maintenance costs caused by insulation wear, dampness or mechanical injury are eliminated by a butt closure method of sealing the installed floor.

* * *

Aluminum Houses. A demand for a low-priced dwelling that is fireproof, corrosion-resistant and can take the punishment of tropical climates, is being met by an all-aluminum house, particularly in areas of South America.

The structure, known as the Kingstrand House, weighs from 865-lbs. for the simplest 2-room dwelling to 2300-lbs. for an 8-room house with two verandas. Packing case specifications for shipment range from 27 to 39-cu.ft. The Kingstrand House is extremely simple to erect. Neither technical nor skilled labor is required. Furthermore, complete instructions and all the necessary tools are enclosed with every house. Walls and roof consist of deeply troughed aluminum sheets which are attractive in appearance and equally effective structurally. Where the sheets overlap, they are bolted together along their full length by ¼-in. bolts which are used throughout the construction. Wall and roof sheets are secured together by means of angles; doors and shutters are assembled on site, using sheets of the same profile as the wall and roof sheets stiffened and braced by top hat sections.

* * *

Heat-Resistant Hard Rubber. Ace Tempron, a new synthetic hard rubber compound, now makes even greater chemical resistance, strength, and economy of hard rubber available for sustained high-temperature applications in handling many corrosive solutions.

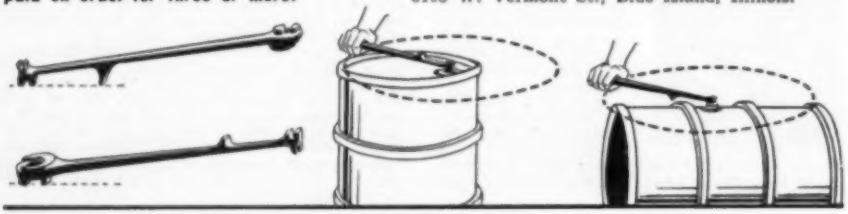
The material was developed by American Hard Rubber Co., 93 Worth St., New York, N. Y., a company which has just celebrated its 100th anniversary in the manufacture of hard rubber and plastics for industry.

SPRA-KLEEN
The More Effective
SPRAY-BOOTH
WATER-TREATMENT
• Foam Free Operation
• Easier Sludge Reclamation
• Lower Operating Cost
WRITE FOR FREE TRIAL SAMPLE
HARCO CHEMICAL CO.
CRANFORD • NEW JERSEY

5-in-1 Steel Drum Wrench

Price $6.00 F.O.B. Chicago. Postage paid on order for three or more.

It fits all sizes and designs of caps or plugs which close the openings in steel drums. Positive grip without slipping. Guaranteed not to break. William C. Richards Co., P. O. Box 155, 3108 W. Vermont St., Blue Island, Illinois.



WHY IT PAYS TO SPECIFY
NEW PERIOD
Better looking . . . longer lasting . . . easier to apply. These are just a few of the many reasons why each year, more and more manufacturers find it pays to specify NEW PERIOD
• Fillers and Stains
• Lacquers—Clear and Semi-Gloss
• Sealers
• Lacquer Enamels—Flat and Gloss
• Synthetic Enamels
Write for 5 Gallon Working Sample at Drum Price
MANUFACTURERS OF FINE WOOD AND METAL PRODUCTION FINISHES
NEW PERIOD Production Finishes
ESTABLISHED 1917
NEW YORK WOODFINISHERS' Supply Co. INC.
109 IMLAY STREET BROOKLYN, N. Y.

Based on nitrile synthetic rubber (Buna-N), Tempron is a hard rubber, and has greater rigidity, heat resistance and chemical resistance than the hard and soft nitrile rubber compounds hitherto available.

* * *

Nothing Sticks to it. A new, and in many ways remarkable, material known as "Teflon" finish is finding increasing use in the textile industry as a coating on machinery parts, chiefly because practically nothing will stick to it. In addition to its anti-sticking property, the finish is unaffected by any of the chemicals normally used in the textile industry. There is no known solvent for "Teflon." It has a low coefficient of friction, being slippery or waxy to the touch. The material remains solid up to 620° F.

New Product Designs of numerous consumer products are being passed up by some manufacturers due to the high cost of tooling up for new models. This may be false economy. Each year brings added knowledge and experience which should be reflected in better appearance or improved mechanical features in the product. Few, if any, products that are not improved will continue to sell in large volume year after year.

* * * *

Finishing. It is well to be reminded that the finish on any product cannot be expected to be better than the surface to which it is applied. Surface preparation is important. It is the foundation of all finishing materials and labor applied to the job. Regardless of the type of materials, a clean, smooth surface is the first requisite of a quality finish.

RONA
TRADE MARK
Synthetic
PEARL ESSENCE
now at lowest price in ten years

for INDUSTRIAL FINISHES BAKE OR AIR DRY For:

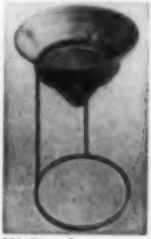
- Refrigerators
- Kitchen Cabinets
- Appliances
- Housewares
- Automobiles
- Lamps
- Office Equipment & Supplies
- Toys
- Jewelry
- Caskets
- Fishing lures
- Your Products made of metal, plastic, wood or glass

Laboratory tests show that RONA synthetic PEARL ESSENCE
- Increases film strength, flexibility and adhesion
- Decreases water and oil absorption
- Enhances appearance, eye-appeal and sales appeal of your product.

Write for sample. Specify application and choice of vehicle.

NATURAL PEARL ESSENCE PRICES ON REQUEST.

RONA LABORATORIES, INC., 358 Doremus Ave., Newark, N. J.



ALL METAL
STRAINER UNIT
$3.95 Complete
Write for Leaflet
GARDNER LABORATORY, INC.
Bethesda 14, Md.

Write for complete catalog of paint testing apparatus.

C. H. Groff, Technical Director For Watson-Standard

The Watson-Standard Co., (Mfr. of finishing materials) announces the recent appointment of Charles H. Groff as Technical Director. Mr. Groff will direct an expanded program of research and development of the company's extensive line of paints, varnishes, lacquers, and plastic compounds for diversified fields of industry.

He was formerly Technical Director of another firm and returns to Watson-Standard where he was Ass't Technical Director from 1943 to 1946. Mr. Groff has had long and varied experience in the organic protective coatings field and is well known in the metal lithographing industry.

He attended Temple University, is a Fellow of the American Institute of Chemists and is a member of the American Chemical Society.

Screen Process Drying

(Continued from page 48)

be instrumental in bringing together the forces which can be applied to result in the drying problem's progressive and eventual solution."

The third speaker was Mr. Jack Simmons who approached the drying problem in a fundamentally different manner. Whereas Milton Grant and John Key relied on heat and air applications for drying, Mr. Simmons wished to avoid both as much as possible. After discussing the disadvantages and expenses of such installations, he posed the problem as follows:

"Wouldn't we be wiser, under the circumstances and limitations, just to concentrate on some mechanical means to take the work away from the press or table quickly and give the prints the amount of time to dry with the inks that we now have at hand?" Conveyors moving the flat sheets need too much space to be considered, according to Simmons.

He overcomes this difficulty in a simple and inexpensive manner. Simmons stated, "Many of us have forgotten that our sheets have another dimension, that of thickness. Seldom are our sheets more than ¼-in. thick and more often only ⅛ and 1/16th-in. or less. Then why not stand them on

edge wherein 1-in. between sheets might be ample. This system changes our arithmetic considerably. Now we can place 12 sheets to the foot and 20 minutes of printing production from a table (100 cards or sheets) takes up only 8 or 9-ft. for racking. A good press will fill only 42-ft. of conveyor." The rest of Mr. Simmons' presentation was a detailed description of the execution of his thoughts.

L. J. Hay Elected President of Chicago Electro-Platers

Lawrence J. Hay, President of Plating Service Co., Chicago, was elected Chairman of the Chicago Electro-Platers Institute at its 18th Annual Meeting. He succeeds Carl F. Hansen, Advance Tinning Co., Chicago.

Mr. Hay distinguished himself during his term as vice - chairman by heading the Institute's Exhibit Committee for the Industrial Finishing Exposition of 1952. He is a member of the American Electroplaters Society and well known for his untiring efforts in support of the Metal Finishing Industry.

The Institute represents 100 Custom Electro-plating shops in the Chicago area.

"Formbrite" New Brass

A 12-page booklet on "Formbrite," has been released by The American Brass Company, the manufacturers. "Formbrite" is metal which is stronger, harder and springier than the usual drawing brasses, yet it retains remarkable ductility for all forming and drawing and takes sharp, clean-cut ornamental impressions. It is said to have a surface superior to ordinary drawing brass; it was developed for applications where the metal is to be formed or drawn into products on which finishing is an important cost factor.

Case histories of this relatively new metal are reported to show how applications of "Formbrite" have contributed to better finished products at lower production costs. Available without charge from The American Brass Co., Waterbury 20, Conn. Ask for Publication B-39.

AGATEEN

No. 2
CLEAR LACQUER

For products that can't stand 100% cleaning nor baking.

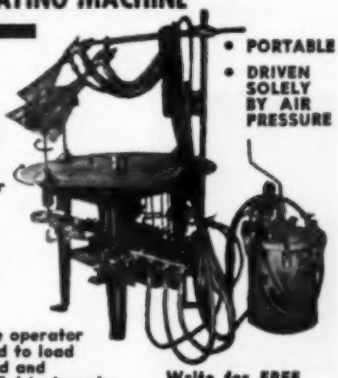
Has superior
ADHESION, DURABILITY, MILEAGE

No samples.
Minimum orders accepted.

Agate Lacquer Mfg. Co., Inc.
Serving Industry Since 1927
11-13 43rd Road
Long Island City, N. Y.
Stillwell 4-0660-1

AGATEEN
THE LAST WORD IN QUALITY

HOLLAND
automatic-pneumatic.
SPRAYING MACHINE



• PORTABLE
• DRIVEN SOLELY BY AIR PRESSURE

Production up to 1000 pieces per hour

Uses regular exhaust booth

Only one operator is needed to load unfinished and remove finished work.

Write for FREE folder "S"

J. HOLLAND & SONS, INC.
MANUFACTURERS · DEALERS
276 SOUTH NINTH ST. · BROOKLYN N.Y.

RECOVER your Paint Overspray

• REPROCESSED in our plant to conform to its original specification, in both physical and chemical properties, paint waste overspray or sludge can be used again in regular production at considerable savings. Our more than 13 years' experience is customers' guarantee of satisfaction.

• WRITE for complete details!

W. C. RICHARDS COMPANY 3108 W. Vermont St., Blue Island, Ill.

Serving **THE SOUTHEAST**

• LACQUERS • GLAZES
• SEALERS • PIGMENTED WIPING STAINS
• FILLERS
• TONERS • NGR STAINS

Complete Technical Service At Your Disposal

SNYDER BROTHERS COMPANY
Manufacturers of Quality INDUSTRIAL LACQUERS
P. O. BOX 548 — TOCCOA, GEORGIA

Lyle Van Patten Joins Sales Force of Hart & Burns

Lyle Van Patten, 34, formerly with a large manufacturer of finishing materials in San Francisco, Calif., has joined the technical sales force of Hart & Burns, Inc., well known paint manufacturer in Riverside, Calif.

Van Patten will assume the duties of "Technical Sales Engineer in Industrial Coatings and Product Finishes," with offices in Los Angeles. He will travel Southern California representing the sales and service division of Hart & Burns, Inc., among the industrial and manufacturing trade markets. He will also be called for special projects where unusual paint technicalities are involved.

Van Patten attended the University of California at Los Angeles where he received his Bachelor of Science chemistry degree in 1947. He was associated with the Pittsburgh Paint Division as an analytical chemist from 1943 to 1944 and served in the U. S. Navy as an aviation electronic technician mate from 1944 to 1946.

During the five years prior to joining Hart & Burns, Van Patten had extensive experience as an industrial paint chemist and formulator.

Sherwin-Williams Names Spitzer to New Post

H. E. Spitzer has been named director of development for the Sherwin-Williams Co. In his new post, Spitzer will supervise all of the company's development laboratories, except the trade sales development section, which is headed up by S. F. Carlson in Cleveland. Spitzer's headquarters will remain in Chicago.

A graduate of North Dakota State College, Spitzer joined Sherwin-Williams in 1937. In 1946 he was put in charge of the company's Chicago technical service department, and in 1952 assumed general supervision of the paint, varnish and lacquer development laboratories at Chicago.

Dunbar Appointed Member of Lacquer Committee, NPV&L

Earl M. Dunbar, President of Wolverine Finishes Corp., Grand Rapids, Mich., has been appointed a member of the Lacquer Committee of the National Paint, Varnish & Lacquer Association of Washington, D. C. Wolverine Finishes Corp. manufactures finishing materials for the woodworking industry.

R. H. Allgood, Director of Public Relations for Detrex

Detrex Corporation of Detroit, Mich., manufacturer of industrial cleaning equipment and chemicals has announced the appointment of Robert H. Allgood as director of public relations for both its industrial and dry cleaning division. In his new position, Allgood will direct all advertising, publicity and sales promotion activities of the company.

New Home for Solvents Firm

The John B. Moore Corp., has taken larger offices and is now located in the Lee Building, 349 Franklin Ave., Nutley, N.J. The company's mailing address will remain P. O. Box 3.

This firm specializes in the origination and marketing of solvent products designed to replace carbon tetrachloride and other hazardous substances used in industrial cleaning and maintenance operations. Substantial increases in the demand for its products and services is cited as the reason for the recent move.

PROFESSIONAL

CONSULTANT

On all methods of finishing. On all types of Metal Products. ENGINEERED FINISHING, 26 Charlotte Bldg., Columbus, Indiana.

TOMORROW'S Products Tested TODAY

A service to aid industry in producing longer-lasting and better-looking products. Quick predetermination of durability and permanency by actual exposure test in South Florida. Write us today for full information.

SOUTH FLORIDA TEST SERVICE
EST. 1931
4201 N. W. 7th St. Miami 34, Fla.

C. RAYMOND SYER
Finishing Consultant and Industrial Engineer
P. O. Box 187
Pacific Palisades, Calif.

PRODUCT FINISHING CONSULTING SERVICE.

If you use Organic Finishes on your products I can reduce your finishing costs for a fixed fee or for a percentage of the savings. For complete details contact me. Address IF-993, care Industrial Finishing, Indianapolis 4, Ind.

CLASSIFIED ADVERTISING

The rate on ads appearing in this department is $1.00 per line of 6-pt. light face type, per insertion. Minimum charge, $5.00. Ads set in 8-pt. extra bold face type cost $2.00 per line, per insertion.

POSITION WANTED.

Sales-service representative available for industrial finishing or raw material manufacturer. Two years laboratory paint formulation plus two years sales experience. B.S. degree. Many successful customer contacts in the Chicago area. Address IF-103, care Industrial Finishing.

POSITION WANTED

As salesman. Thoroughly familiar with all phases of selling. Have good following in the south. Can service my own accounts. Address IF-106, care Industrial Finishing.

FURNITURE SUPERINTENDENT DESIRES POSITION.

Superintendent with years of experience manufacturing bedroom, dining room, dinette and all kinds of chairs and tables, know all short cuts throughout entire plant to manufacture quality furniture at lowest costs, can handle plant from yard to shipping. Address IF-100, care Industrial Finishing.

POSITION WANTED.

Expert Foreman Finisher desires connection with reliable concern. Have knowledge both technical and practical in all finishing phases. Capable of meeting schedules with quality finishes. Able to get along with and handle any number of people. 29 years' experience in the compounding of paints and finishing technique. Address IF-104, care Industrial Finishing.

HELP WANTED

MANUFACTURERS' REPRESENTATIVE WANTED.

Corona-Merco infra-red 'Pyrex' tube oven sections, individual heaters. Profitable territories now open. P. O. Box 669, Glendale, Calif.

ENAMEL DEPARTMENT FOREMAN.

Must be experienced in lacquer and enamel finish on metal cases. Excellent opportunity for person interested in a steady position with a medium size manufacturer located in Newark, N.J. area. Write complete details, age, experience, salary, etc. Address IF-996, care Industrial Finishing.

FOREMAN WANTED

To supervise small but modern finishing department in Midwest commercial refrigerator factory. Must be qualified to develop efficient metal cleaning and finishing methods and produce high quality finish. Knowledge of sheet metal fabrication very desirable. All employees participate in profit sharing, company paid hospitalization insurance, other fringe benefits. Address IF-102, care Industrial Finishing.

FINISHING SUPERINTENDENT WANTED.

Thoroughly experienced man on high quality novelty furniture and case goods. Must know all the techniques of modern finishing, especially bleached mahogany. Our plant is located in Chicago. Salary is from $125 to $150 a week, depending on the qualifications of the applicant. Mail complete information and indicate the earliest time that you would be available. Address IF-105, care Industrial Finishing.

FINISHING FOREMAN WANTED.

This is a permanent position with a real future. Furnish us with a complete history of previous connections. The locality of the plant is in Western New York. Address IF-997, care Industrial Finishing.

SALES MANAGER OR SUPERVISOR DESIRES CHANGE.

16 years' experience with fine record in Industrial Finishes field. Prefer connection with midwest or southern company. Address IF-995, care Industrial Finishing.

SALESMAN WANTED.

Connecticut territory by established Thinner Specialist to sell on commission basis with other lines. Excellent prices. Replies confidential. Address IF-998, care Industrial Finishing.

SALESMAN WANTED.

Unusual opportunity for a salesman of lacquers and synthetics who seeks good laboratory cooperation plus high commissions. Plant located in Metropolitan New York. Address IF-101, care Industrial Finishing.

SALES EXECUTIVE AVAILABLE.

Let me help you with your sales problems. 20 years in Industrial paints, lacquers, enamels, plastics. College man, age 40. Experienced in laboratory, production, sales, customer outlets and promotion. Address IF-994, care Industrial Finishing.

REPRESENTATIVE WANTED.

Nationally known manufacturer of Roller Coating equipment will consider appointing a few select representatives to handle complete machinery line. National trade paper advertising produces many profitable leads. In reply, state manufacturers you now represent, territory travelled and classification of trade called upon. Write IF-989, care Industrial Finishing.

FINISHING EQUIPMENT FOR SALE

Paasche Automatic Airpainting and Drying Unit Complete with Water Wash Booth.
R. C. Mahon Spray Booths with Blower, Pump, Filter, Turntable, Etc.
Barrett Centrifugal Enameler for Filwhirl or Dipspin Methods.
Binks and DeVilbiss Pressure and Mixing Tanks. Sizes 5 to 125 Gallons.
C. M. Hall Infra Red Oven, Degreasers, Blowers, Motors, Switches, Etc.

Write for Particulars, or Inspect at

GENERAL TRADERS, INC. 2675 W. GRAND AVENUE, CHICAGO 12, ILLINOIS

SALES MANAGER WANTED.

Industrial paint company has excellent opening as Sales Manager for Salesman with good following. Opportunity to purchase stock if desired. Located in desirable midwestern city. Address 1F-992, care Industrial Finishing.

SAVE MONEY ON LACQUER OR ENAMEL.

LET US MANUFACTURE your lacquer, enamel or other industrial finish for considerably less money than you are paying now. Same high quality as your present material or better. For full details write to: FAIRMONT CHEMICAL CO., East Syracuse, New York.

FOR SALE.

Air compressor complete with 10-HP motor, priced reasonable. For details write KENWORTHY BROTHERS CO., Westboro, Massachusetts.

FOR SALE.

Used paint-baking oven 6x7x7-ft. high, complete with Flamatrol unit and Partlow controls. Address 1F-999, care Industrial Finishing.

FOR SALE.

Despatch Finishing System: 3-stage washer, dry-off oven, 2 paint spray booths, prime and finish coat bake oven including complete conveyor. Work clearance 30" wide x 44" high. Excellent condition. Priced well. ALLIED ENGINEERING & EQUIPMENT CO., 833 E. Kilbourn Ave., Milwaukee 2, Wisc.

WANTED TO BUY.

Will buy your dirty Thinners and Solvents. Send samples or letters giving approximate contents and solids. Address THE JOHANN CO., 8547 S. Ashland Ave., Chicago, Ill.

SOLVENT CLEANING SERVICE.

Dirty lacquer solvent can be shipped to us for distillation and returned to you clean and ready for use. Within 200 mile radius of Louisville a substantial economy can be realized. Cost runs from 14c to 19c per gallon. KENTUCKY COLOR & CHEMICAL CO., 600 N. 34th St., Louisville 12, Ky.

FORD CUPS

THE VOL-U-METER COMPANY

Buffalo 16, New York

How to improve

METAL PRODUCTS

through better finishes

Here is a book that answers all the questions on finishing metal products and shows the methods, techniques, and cost factors in producing them.

Just Published

FINISHING METAL PRODUCTS

New Second Edition describes all recent developments in this field.

By HERBERT R. SIMONDS and ADOLPH BRUGMAN, Consulting Engineers. 352 *pages*, 5x8, 135 *illustrations*, $5.50.

A COMPLETE PRACTICAL MANUAL covering usual types of finishing—galvanizing, polishing, plating, lacquering, painting. Also discusses fully such subjects as use of color, and production and use of prefinished materials.

COVERS FINISHING from a business and sales standpoint. Deals with methods that improve results and reduce costs. Helps you determine types of finish with greatest sales appeal.

EXPLAINS SHOP TECHNIQUES. Tells how to reduce polishing and buffing costs. Gives techniques for cadmium plating, chromium plating, spray coating. Tells how to use enamels and lacquers in metal parts production.

This up-to-date, handy manual should be at the finger-tips of plant managers, superintendents and foremen. Send your remittance today to

INDUSTRIAL FINISHING

1142 N. Meridian St. Indianapolis 4, Ind.

INDEX to Advertisers

Acorn Chemical Co. 118
Advance Paint Co. ..... Third Cover
Advance Process Supply Co. 48
Agate Lacquer Mfg. Co. 123
Allied Finishing Specialties Co. 75
Atlas Powder Co. ..... Second Cover

Barker Chemical Co. 97
Barrett Co., Leon J. 77
Better Finishes & Coatings, Inc. 103
Beugler Mfg. Co. 67
Bond Chemical Products Co. 108
Burdett Mfg. Co. 25

Capitol Machine Co., The 12
Carborundum Co., The 36-37
Claremont Waste Mfg. Co. 113
Classified Advertising 125
Coast Paint & Lacquer Co., Inc. 85

Day & Co., James B. 47
DeBurgh Conveyors 89
Despatch Oven Co. 9
Detro Mfg. & Sales Co., Inc. 109
DeVilbiss Co., The 80-81
Dolan & Co., V. J. 5
Dualheet, Inc. 7
DuBois Co., The 6
DuPont de Nemours & Co., E. I. 64-65
Duralac Chemical Corp. 8

Egyptian Lacquer Mfg. Co., The 38
Eli-Bee Chemical Co. 109

Fostoria Pressed Steel Corp. 18-19

Gardner Laboratory, Inc. 122
Gasway Corp. 20
Glidden Co., The 14-15
Grand Rapids Varnish Corp. 2

Harco Chemical Co. 120
Holland & Sons, Inc., J. 123

Jamestown Finishing Products, Inc. 13
Jensen Specialties, Inc. 77
Jiffy Mfg. Co. 99

Kirk & Blum Mfg. Co. ..... Back Cover
Klem Chemicals, Inc. 35
Koch Sons, Inc., George 63

Lanly Co., The 16
Lawrence-McFadden Co. 93
Lilly Varnish Co. ..... Front Cover
Lowe Brothers Co. 100-101

M. & E. Mfg. Co. 1

National Air Sander Co. 95
Neilson Chemical Co. 40
Newcomb-Detroit Co. 41
New York Woodfinishers Supply Co. 121
Nikolas & Co., G. J. 17

Oakite Products, Inc. 78

Perfection Paint & Color Co. 61

Qualatone Products, Inc. 111

Randolph Products Co. 48
Ransburg Electro-Coating Corp. 23
Research Products Corp. 118
Reliance Varnish Co. 55
Richards Co., Wm. C. 120-124
Rinshed-Mason Co. 21
Rockford Varnish Co. 90-91
Rockwell Co., W. S. 75
Rona Laboratories, Inc. 122

Schaefer Varnish Co., Inc. 83
Schmieg Industries, Inc. 11
Shell Chemical Corp. 31
Sherwin-Williams Co., The 50-51-79
Snyder Bros. Co. 124
Solvents & Chemicals Group, The 33-45
South Florida Test Service 125
SpeedWay Mfg. Co. 107
Spee-Flo Co. 117
Sprayon Products, Inc. 49
Spruance Co., The Gilbert 57
Sundstrand Machine Tool Co. 73
Syer, C. Raymond 125

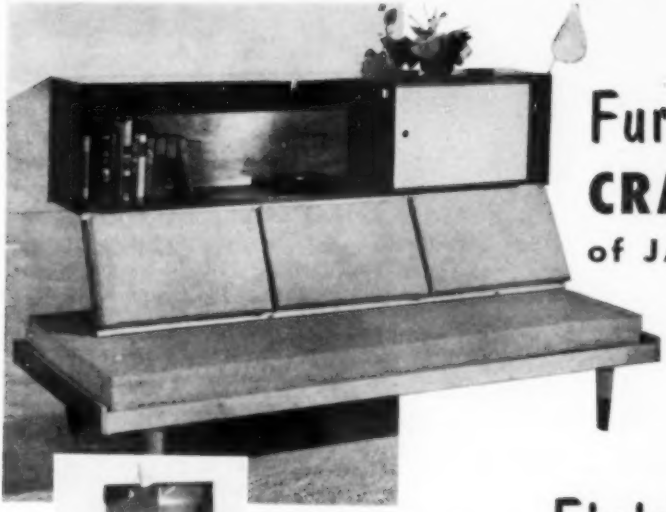
Tousey Varnish Co. 10

United Lacquer Mfg. Corp. 59

Varnish Products Co. 105
Vol-U-Meter Co. 127

Watson-Standard Co. 27
Wil-Son Mfg. Co. 87

Young & Bertke Co. 71



Furniture by CRAWFORD of JAMESTOWN

Combination Bed and Seating Couch. Drop front on the wall hanging storage chest serves as back rest for couch.

3-Drawer Chest with combination bulletin board and adjustable mirror.

Desk and Storage Unit with adjustable light.

Finish by ADVANCE

● Here are three of the seven pieces from the famous "Group Eighteen" functional modern suite produced for the younger set by Crawford Furniture Manufacturing Corp., Jamestown, New York. We are proud to have assisted in developing the base finish to provide the harmonizing colors which give this suite both charm and durability.

Advance PAINT COMPANY

Indianapolis Indiana

MANUFACTURERS OF INDUSTRIAL FINISHES

KIRK & BLUM

FUME CONTROL SYSTEM

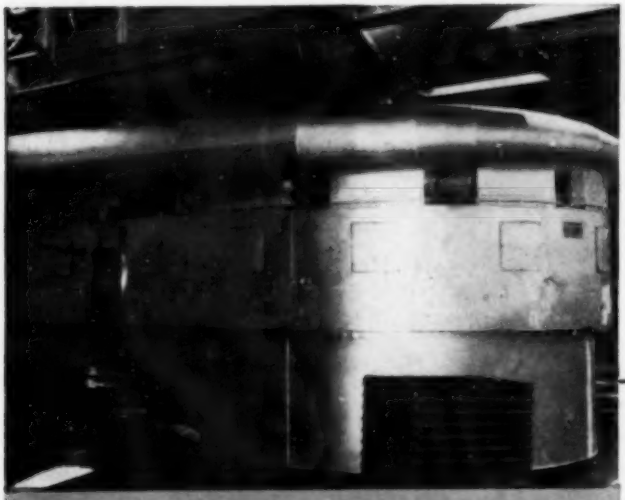
Saves 5 Ways..

1. REDUCES AIR VOLUME
2. LOWERS MAINTENANCE COSTS
3. CUTS REPLACEMENT COSTS
4. IMPROVES WORKING CONDITIONS
5. ELIMINATES DAMAGE TO OTHER EQUIPMENT

In large and small plants, Fume Control Systems engineered, fabricated and installed by KIRK & BLUM show substantial savings by increasing the life of costly plating equipment.

Here, a hood—with convenient access openings encircles the tanks — preventing cross currents and reducing air volume requirements.

Fumes are picked up at the outside of the tank, clean air is drawn over the machine's mechanism in the center, thereby keeping damaging corrosive fumes away from costly moving or mechanical parts.



KIRK & BLUM Fume Control on an Automatic Plating Machine in a noted auto ignition parts plant. Note hinged anode access and inspection doors just above tank top.

Write for Booklet F, showing typical installations.

The Kirk & Blum Mfg. Co.,
3131 Forrer Street,
Cincinnati 9, Ohio